Commodification of Body Parts: 
By Medicine or by Media?

CLIVe SEALE, DEBBIE CAVERS AND MARY DIXON-WOODS

The ‘commodification’ of body parts (Scheper-Hughes and Wacquant, 2002) has become a prominent theme in contemporary debates about the body. These focus on how the reorganization of the boundaries of the body, and the recognition of new types of separable, exchangeable and reincorporable body parts (Rabinow, 1999) imply that the body is a form of merchandise. Commodification is frequently regarded as violating personal, social and community meanings for bodies. Bio-science and biomedicine have been seen to be overwhelmingly responsible for the growth in commodification of body parts, by creating new technologies to fragment and isolate bodily components to serve a variety of purposes, and allowing these to be exchanged in commercial transactions. Sharp (2000: 298), for example, points to the ways in which the medicalization of bodies leads them to be ‘quickly fragmented and transformed into scientific work objects’. The trade in transplant organs is a frequently cited example of such commodification (Scheper-Hughes, 2001a, 2001b), along with use of reproductive tissue for therapeutic and research purposes (Bridges, 2002) and the commodification of DNA (Everett, 2003).

The commodification thesis has some limitations; clearly not all forms of exchange of human tissues occur within commercial contexts. Whether the
commodification theory can be applied to cases such as voluntary blood
donation is not straightforward (for example, see Waldby et al., 2004). A less
obvious criticism, however, concerns the tendency to assume that only bio-
science and biomedicine are involved in the commodification of human materials.
In this article, we argue that commodification of human materials may also occur
in less obvious ways, by less evident protagonists. Through a study of media
coverage of stories about body parts removed from children, we show that an
exclusive focus on science and medicine as agents of commodification ignores the
significant role of the mass media. Paradoxically, commodification is a process
that journalists have often sought to condemn where they can show it to be done
by others.

We begin by briefly tracing sociological and anthropological debates about
commodification of human materials, showing that these have primarily focused
on the roles of biomedicine and bio-science, and then suggest that the role of
mass media in this process has been neglected.

Commodification, Science and Medicine

An object becomes a commodity when it acquires a use-value and is then subject
to commercial exchange (Marx, 1887), but in the case of body parts a process of
objectification or reification is required, in which it is first necessary mentally or
physically to separate the materials from the body so that they may become
objects. Once objectified, as Appadurai (1986) has pointed out, a body part may
have a social life as a thing and, ultimately, as a commodity. Objectification,
though, causes tension between the status of body parts as 'self' or 'not self'.
There is in this process a potential violation to personal identity and, in the case
of the parts of someone who has died, to personal memories. This is quite apart
from any scientific or economic exploitation that may occur.

Many practices related to bodies have attracted the charge of unwelcome and
exploitative objectification and commodification. Sharp’s (2000) review lists
slavery, the transnational trade in adoptable children, the sports industry, the
military use of bodies and a variety of exploitations of women’s bodies. The
history of medical involvement with bodies in particular is replete with instances
of commercialization of body parts. The demand for corpses for dissection
(Richardson, 1987) is perhaps the most notorious of these trades. More recently,
the trade in transplantable organs, particularly kidneys taken from live ‘donors’,
has become a cause for concern (Schepel-Hughes, 2001b), with recipients as
much as donors seen as part of the process of objectification.

The politics of newer biotechnologies reflects similar tensions about
commodification, objectification and reductionism. The creation of babies to become donors of human materials for sick siblings has been said by some to conceive of these children as no more than collections of body parts (Morrow, 1991). Media reports of this phenomenon (describing potential donors as ‘designer babies’) have played up such fears (Nerlich et al., 2003), leading to statements from official bodies that attempt to moderate the debate (HFEA, 2004). Genetic research has led to heated debates about the ownership of commercial spin-offs from the use of particular individuals’ parts (Everett, 2003). Charges of ‘biopiracy’ have been levelled at scientists seeking to map and exploit the potential of the human genome by collecting information from isolated populations (Lock, 2001). Some (Palsson and Rabinow, 2001) have sought to mediate this conflict by advocating a ‘communitarian’ perspective that comes close to the original ideas of Titmuss (1970) about blood donation as an altruistic ‘gift of life’, or to the perspective taken by Busby (2004) which presents awareness of reciprocal need as a motivation for donation.

Resistance to these processes of objectification and commercialization has been detected by anthropologists in a variety of guises. Scheper-Hughes (2001b) cites popular opposition to ‘presumed consent’ laws, which allow doctors to remove organs after death unless objections are made, as evidence of popular resistance to the trade in transplantable organs. Both she and Dingwall (2001) read the popularity of urban legends about organ trafficking, in which (for example) children are said to be kidnapped for their organs, as a sign of resistance. Lock (2001) points to the opposition of indigenous peoples to the ‘racist’ ‘vampirisim’ of the Human Genome Diversity Project and understands this as a form of resistance to unequal commercial exploitation. The belief in the ‘cell memory’ of transplanted organs, whereby organ recipients are felt by donors and their families to have taken on aspects of the personality of the donor, is also described by some anthropologists (Lock, 2001; Sharp, 2000) as evidence of cultures of resistance to the scientific-rational objectification of body parts.

The critique of biomedicine in these processes is not unknown to doctors nor unexplored in medical journals. Andrews and Nelkin, in a *Lancet* article, describe the ‘growing divide between scientific and social views of the body in the commercial context of the biotechnology age’, and claim that ‘Objectifying the body enables scientists to extract, use, and patent body tissue without reference to the person involved’ (1998: 53). Writing in the journal *Archives of Disease in Childhood*, two clinical pathologists (Burton and Wells, 2001) make the point that: ‘What is a mere blood clot and deciduas to the pathologist may have been a much loved and wanted pregnancy to the parents’ (2001: 6). Increasingly, it seems, bio-scientists are required to be seen to respect personal and social
meanings of human materials and diminish the sense of objectification that their separation from the body for medical purposes may entail. Legal systems have also absorbed this message, so that offences to subjective, spiritual or ‘emotional’ rights associated with human materials are increasingly recognized (Laster and O’Malley, 1996).

In the face of the widespread belief that biomedicine and bio-science play an important role in dehumanizing the meaning of body parts, and that this is largely an unwelcome process, some are to be heard arguing in the opposite direction. First, there is the finding that some human materials, such as blood donated for therapeutic purposes, are more acceptably objectified than others (Waldby et al., 2004). Second, it seems that some removals of human materials are seen as so beneficial for others (as in the case of life-saving transplantation) that any objectification that this may involve is either welcomed or ignored by the recently bereaved, who derive comfort from the idea that the death of one person has preserved the life of another (Beard et al., 2002). Third, anthropologists and sociologists who have investigated medical practices that involve physical examinations (Emerson, 1970) and surgical procedures (Katz, 1981) have noted that a routinized attitude that designates body parts as technical objects appears necessary in order to carry out these procedures if participants are not to be overwhelmed with feelings of embarrassment, horror or disgust. Finally, Lock (2001) herself notes that there are circumstances in which objectification of a body part can be experienced as a welcome relief from the moralizing discourses associated with continuing a view of certain parts as ‘self’.

Running through all of these debates, however, is the shared focus on bio-science, biomedicine and associated commercial infrastructures. These are seen as the prime movers in objectification, commercialization and exploitation. This perspective, we suggest, ignores the important role of mass media in contributing to commodification of body parts.

Mass Media Commodification

The commercial exploitation of bodies for mass entertainment purposes has, like medico-scientific exploitation of bodies, a relevant history and many manifestations. The use of women’s bodies for this purpose is well known. In relation to disability, Shakespeare has pointed out that media depictions of bodily difference reflect a tradition that draws on that of the 18th-century freak show, where ‘human beings were seen as non-human, as potential exhibits in what was perhaps a cross between a zoo and a museum’ (1994: 287). The use of bodily deformity to portray evil character across a variety of media has been well
documented (Barnes et al., 1999). Nowadays, Shakespeare argues, in mass media, ‘the objectification of disabled people . . . parallels the objectification of women in pornography. In each case, the gaze focuses on the body . . . particular aspects of the body are exaggerated . . . the viewer is manipulated into an emotional response’ (1994: 288).

In spite of the ready availability of these examples, it is rare for the mass media to be acknowledged as a significant force by those concerned with commodification of bodily materials. Sharp’s comprehensive account of the anthropological literature reviews numerous studies of the role of science and medicine, but in only one sentence mentions mass media as having a role in commodifying ‘suffering’ by portraying ‘the weak and the disenfranchised [as] little more than objects of pity and exploitation’ (2000: 293). In a special issue of *Body & Society* devoted to body commodification, the majority of articles focus on medicine and science (Schepers-Hughes, 2001a).

However, one piece in that collection provides a fuller account of the mass media contribution. Klinenberg describes the ‘sensationalistic’ and ‘gruesome’ media coverage of deaths in the 1995 Chicago heat wave. He argues that images of the bodies themselves ‘played a crucial role’ as ‘commodified spectacles in the media representation of the crisis’ (2001: 123). Photo-journalists scrambled for shots of bodies arriving at already overcrowded morgues, so that the bodies ‘became the subjects of spectacle, commodified materials for selling stories rather than substantive, human remains’ (2001: 130).

This is an important but rarely expressed perspective. The relative influence of medicine as against mass media on body part commodification is one that drives our own analysis of media depictions of removals of human materials from children during a period that covered the UK organ retention controversies. Although we refer to these controversies as ‘scandals’ in this article, we do so in the sense of their being publicized events that ‘cause moral discredit or injury to reputation’ (*Chambers Dictionary*), rather than subscribing to any particular interpretation of the events that lay behind the controversies. In addition, we examine the language of news texts rather than the visual spectacle produced by the photo-journalism analysed by Klinenberg.

**Methods and Materials**

The search terms ‘tissue’, ‘donation’, ‘child’ and ‘research’ (and variants such as ‘tissues’ or ‘children’) were used to search Lexis-Nexis, an online database of all UK newspapers, with archives going back to the 1980s. The Boolean operator ‘AND’ was used to ensure that each article retrieved contained all four search
terms. This meant that many articles reporting solely on retained organs, for example, were not retrieved. The 463 articles that this retrieved were inspected to select those that were wholly or predominantly about the removal of body parts from children for medical research or medical therapeutic purposes. This generated a selection of 122 articles. These were intensively studied and we developed a coding scheme to mark up themes within the articles which was applied to all articles (by DC) after 20 percent of the articles were independently coded by another researcher (CS) and any differences of interpretation resolved through discussion involving a third researcher (MDW). Additionally, concordance software was used to identify sections of text where particular kinds of words were used (for example, names of body parts, numbers). Where we present counts of words or of coded passages of text, the count has been done across the whole sample of articles studied, unless otherwise stated.

Of the 122 articles in the final sample, 83 articles (68 percent) were judged to be largely about UK organ retention 'scandals' (Kennedy Report, 2001; Redfern Report, 2001). The organ retention controversies concerned the removal and storage of tissue and organs from children following post-mortem without the full consent or knowledge of relatives. A Professor van Velzen was the particular focus of events at Alder Hey Children’s Hospital in Liverpool, England. Government inquiries, investigations at hospitals and eventually new legal and governance frameworks followed.

The media played an important role in shaping the controversy, which began in 1999 when evidence given at an inquiry into events at a Bristol hospital revealed that a collection of hearts existed at Alder Hey, and that it was common for other hospitals to retain organs for research purposes. The original aim of Professor Robert Anderson, who gave this evidence, was to indicate that these collections had improved the results of paediatric cardiac surgery. The Liverpool Echo, though, and subsequently the national press, ran the story as a national scandal, with the Daily Mail being particularly active in campaigning on behalf of bereaved parents. Our method of sampling (according the strict criterion that the piece must involve discussion of the removal of body parts from children for medical research or medical therapeutic purposes) meant that we could chart the impact of the Alder Hey story on the volume of coverage, which rose dramatically once the organ retention story broke, and experienced further surges when official inquiries reported a couple of years later. Our sample contained fewer than four articles a year until 1998. With the breaking of the story in late 1999, 10 articles were retrieved that year, 11 in 2000, 49 in 2001 when public inquiries into the situation reported, 16 in 2002 and 8 in 2003.

Of the 122 articles in the sample, 53 (43 percent) were about events at Alder
Hey; 26 (21 percent) were about regulatory moves that were a consequence of the organ retention scandals. These regulatory moves have been substantial, including a new Human Tissue Act in 2004, which sets up a Human Tissue Authority to oversee its workings and act as a licensing authority for all activities involving the removal, storage, use and disposal of human tissues. This Act is a government response to a widespread feeling of distrust by the public of the UK medical and scientific establishment arising from the perception that organs had previously been retained without properly informed consent.

Some time after the breaking of the original Alder Hey news, it was discovered that the hospital had retained and sold to pharmaceutical companies thymus glands taken from children having heart operations, which would otherwise have been discarded as clinical waste. Nine stories (7 percent) in our sample covered this, renewing some of the themes of the earlier story about organ retention by framing this story with the ‘template’ provided by the Alder Hey story, a phenomenon noted in other media stories (Kitzinger, 2000).

The rest of the articles in the sample (32 percent) were about other topics, for example the use of donated bone marrow for therapy (4 pieces, 3 percent), or the creation of what media reports called ‘designer babies’ that could later be used for such donation to siblings threatened by serious illness (11 stories, 9 percent). Seventy percent of the stories were from ‘broadsheet’ papers; 30 percent were from tabloids.

Media Language

Horror Language

A number of rhetorical devices contributed to the impression that the child organ retention story belonged to the horror fiction genre. In developing this theme, journalists drew on and further developed horror imagery and language used in the Redfern Report itself (Dewar and Boddington, 2003). First, a number of terms acted as ‘metacommentary’ in explicitly characterizing the story for readers. Most obviously, this was signalled by simply calling the situation a ‘scandal’ and this was done repeatedly, in headlines like ‘Hospital scandal: the hospitals that secretly kept children’s organs’ (The Independent, 5 Dec. 1999). Other metacommentary terms showed readers that, in addition, they might see the story as an example of the horror genre. An obvious device was simply to repeat the word ‘horror’ and its derivatives, as in ‘[the] horrific harvesting of organs from the bodies of children’ (The Times, 3 Feb. 2001). Other such metacommentary terms included ‘gruesome’, ‘macabre’ or ‘ghoulish’, as in a description of pathologists as ‘a profession so widely caricatured as ghoulish’ (The Times, 6 Dec. 2003).
The language and phraseology of horror movies was also invoked, with a headline in the *Daily Mail* (13 May 2000) announcing ‘You think your nightmare can’t get any worse, then it does’, reminiscent of the ‘Just when you thought it was safe...’ movie advertising phrase. Another piece described ‘Pathologists, the doctors of the dead’ (*The Times*, 5 July 2001), and one more made a horror fiction connection: ‘pathologists were disciples of some sort of Frankenstein cult’ (*Mail on Sunday*, 8 July 2000).

Our analysis suggests that journalists used the organ retention story as a ‘template’ (Kitzinger, 2000) to generate further stories in the same genre but with different content, for example nominating as a ‘scandal’ the surgical removal of thymus glands during heart surgery when it was found that this tissue (which would otherwise have been disposed of) was then given to a pharmaceutical company in exchange for a fee (‘sold’ to the firm). In the ‘template’ thymus gland story there was an emphasis across several reports on the idea that the children involved, who had undergone heart surgery under general anaesthetic during which their thymus gland had to be removed, had been ‘living’ at the time of the removal, as where the *Mirror* (27 Jan. 2001) summarized this story as involving ‘“profiteering” from body parts of LIVING children’ (their capitalization).

The emphasis on children being alive during the removal of their thymus gland invokes rhetorically the image of a sentient victim of some agonizing procedure of the sort depicted in horror fiction. Indeed, the heavily covered phenomenon of repeat burials of children by parents reunited with parts of their long dead children can, arguably, be said to connote the notion of the ‘living’, or at least constantly revivifying dead, as in the headline ‘I’ve buried my daughter three times’ (*Daily Express*, 23 May 2002).

*Body Parts as Fetishes*

A fetish is an object believed to carry a magical or spiritual force, and commentators on body commodification have pointed out that body parts can achieve the status of such fetishes, as in the medieval trade in Catholic saints’ relics, or the imagined power over the fortunes of the living of preserved ancestral body parts (Lock, 2001; Sharp, 2000). In our sample, the news stories fetishized certain body parts above others, and this status, as well as the preciousness associated with these being *children’s* body parts, meant that it was possible to magnify the scandal where journalists could identify apparently disrespectful treatment by doctors.

Particular body parts were mentioned more often than others. Excluding the thymus gland, mentioned 65 times in connection with the particular mini-scandal generated by that story, the most frequently named parts were hearts (mentioned
81 times), brains (63) and heads (25). Clearly these are body parts of major functional and symbolic importance. When associated with children, the removal of hearts offered journalists the opportunity to depict particularly poignant scenarios. Thus *The Independent* ran a picture of the Alder Hey hospital logo with the following caption, emphasizing the contrast between innocence and horror:

[Alder Hey’s rocking horse logo] The hospital has removed 2,087 hearts from children over the past 40 years. (*The Independent*, 5 Dec. 1999)

In the same newspaper, a journalist criticized the objectified scientific view of body parts, opining:

HEARTS AND brains of dead children should not be called clinical waste. They should not be treated as objects to be sold or burned, or left in jars covered in dust on shelves. (*The Independent*, 3 Feb. 2001)

*The Mirror* reported the discovery of retained children’s hearts in the ‘Diana Princess of Wales’ hospital in Birmingham, which led to the creation of a parental support group called the ‘Stolen Hearts Bereaved Parents’ Group’, whose founder had ‘learned of the “horrifying thefts” at the hospital, including the heart of his own daughter’. Hinting at rumours of a commercial trade in such organs further intensified the sense that violations of sacred taboos had occurred: ‘Last year it was claimed that some of the organs secretly taken from the dead babies could have been sold to “cover expenses”’ (*Sunday Mirror*, 19 Nov. 2000). Clearly, too, the connection with Diana (lover of children and ‘Queen of Hearts’) was particularly helpful in generating the required associations.

A number of the ‘head’ mentions referred to a particularly sensational find at Alder Hey, reported across a number of papers:

All of the press has been trailing in advance of the publication of this grisly slice of true-life horror that the most awful single object among the professor’s 3,000 trophies is a child’s head preserved in a jar. (*The Independent*, 30 Jan. 2001)

*The Independent* ran this story again the following day, correcting the impression it had given the day before that the head was one of Professor van Velzen’s ‘trophies’ but using the opportunity to list as many other heads as possible:

The most shocking item in the collection, according to the inquiry, dated to before Professor van Velzen’s time: the head of an 11-year-old boy. There were also 13 post-natal heads and parts of heads from children as young as a few days old, all from the 1960s, and 22 heads from premature and fully formed foetuses. (*The Independent*, 31 Jan. 2001)

Stories about the retention of heads were supplemented by ones about the retention of complete bodies of foetuses (mentioned 25 times) or stillbirths (12
times), some reports stressing the disrespectful and objectifying manner in which these precious objects had been treated, as where some foetal material was labelled with the words ‘neck deeply lacerated. Pull to pieces some time and reject’ (The Independent, 31 Jan. 2001).

Containers, Collections and Numbers
The words used to describe groups of retained body parts were of three sorts. First there were those that demonstrated the objectification of the parts as medical specimens by emphasizing their status as belonging in scientific collections. The most common term used to convey this was in fact ‘collection’, which occurred 17 times. Other terms included ‘museum’ (4), ‘library’ (2), ‘catalogue’ and ‘holdings’ (1 each). Second, related to this, but with more openly negative connotations, were references to the organs constituting a ‘stockpile’ (5 times), ‘pile’ (2), or ‘hoard’ (1) as in: ‘part of a hoard of more than 1,000 organs’ (Daily Mail, 29 Jan. 2001) and:

... the hospital stripped the organs of over 1,000 dead babies and children, most of which were never used for medical research but just stockpiled. (The Guardian, 31 Jan. 2001; emphasis added)

Third, some reports mentioned containers with particularly dehumanizing or disrespectful connotations so that the horror or poignancy of the image might be emphasized. If the most powerfully fetishized parts (heads, hearts, brains, whole bodies) could be involved in this, the potential for offence was further enhanced. ‘Jars’ were the most frequently mentioned such container, but others included plastic bags, cardboard boxes and others, as in the following extracts (our italics added):

... tales of organs in jars and distraught parents collecting parts of their long-dead children in plastic bags. (The Times, 6 July 2001)

Among van Velzen’s macabre collection were 2,000 children’s hearts and more than 1,500 foetuses. Most were stored in plastic buckets and poorly labelled. (Daily Express, 31 Jan. 2001)

Families were repeatedly lied to by managers, forced to reopen their babies’ graves and take home brains and hearts in cardboard boxes. (Daily Mirror, 29 Jan. 2001)

The magnitude of the scandal was emphasized through the use of large numbers, lists and emphasis on the size or importance of the organs retained. Numbers are important devices in media reporting (Bell, 1991; Roeh and Feldman, 1984; Seale, 2003). Classically, they are used to enhance news value by exaggerating effects as either very tiny or, more usually, very large and important. Thus the extreme importance of some new risk to health and safety such as child abduction (Best, 1987, 2001), crack usage by expectant mothers (Kline,
1996) or the number of eggs infected by salmonella (Fowler, 1991) is emphasized by the use of big numbers. Numbers, as Bell (1991) observes, work by enhancing the apparent facticity of reports. In the organ retention story, there was repeated stress on the large numbers of organs involved, which both contributed to the sense of the magnitude of the scandal, and emphasized the transformation of body parts into anonymized components of large collections. Thus journalists wrote of ‘hundreds’, ‘thousands’ or ‘tens of thousands’ of organs in text and headlines that used these words to emphasize the magnitude of the problem:

The man accused of removing hearts and other organs from hundreds of dead babies without the parents’ permission. (The Independent, 5 Dec. 1999)

... the report into the retention by Alder Hey Children’s Hospital in Liverpool of thousands of body parts taken in post mortem examinations, without parental consent. (The Times, 6 July 2001)

... tens of thousands of brains have been stored without consent in hospitals across Britain. (The Times, 21 May 2003)

As with other stories (Stallings, 1990), this one could run on because it was possible to discover fresh examples of the same phenomenon at other sites. The reporting of a census of retained organs gave further opportunities both to stress the scale of the problem and to emphasize that it was not confined to the one or two locations where the news had initially broken but was a national and even an international problem, of a scale hitherto unrecognized:

... evidence to the McLean inquiry, seen by The Sunday Times, reveals there are 6,607 hearts, lungs, brains and other organs stored in Scottish hospitals. (Sunday Times, 4 Feb. 2001)

AUSTRALIAN HOSPITALS KEPT 900 BABY HEARTS ... MORE THAN 25,000 body parts, including hundreds of baby hearts, are stored in hospitals and universities in New South Wales, Australia’s most populous state. … They include 4,002 body parts from children, including more than 900 babies’ hearts, held in two Sydney hospitals. (The Independent, 10 March 2001)

**Proliferation, Fragmentation and Listing**

As well as the attention paid to particular organs with high symbolic value, press reports were striking in the proliferation of other parts mentioned. Lungs were mentioned in relation to organ retention scandals 18 times, followed by tumours (17), blood (11) and kidneys (6). Occurring up to five times each were abdomen or abdominal organs, bladders, bone, bowel, cancer tissue, chest, spinal cord, corneas, diaphragm, eyes, gall bladder, intestine, limbs, livers, muscle, pancreas, quadriceps, skeletons, skin, thorax, tongue and trachea. It was common for a number of parts to be listed together, generating a sense of chaotic bodily fragmentation. These lists most commonly occurred in relation to stories about
particular children, emphasizing parents' distress at the apparent dismemberment of their child. (Our emphasis is added in the extracts below, and real names have been changed):

... the parents of six-year-old Jamie were told that, following his death in March 2000 from a reaction to a dental anaesthetic, his lungs, heart, trachea and brain were stored. (Daily Express, 23 May 2002)

Repeated discoveries of parts taken from the same body, leading to repeated shocks and burial ceremonies, further conveyed images of the prolific dispersal of body parts, parents being cast in the position of desperately reassembling their children.

According to the pathologist's report, the hospital was no longer in possession of the thymus gland when his post mortem operation was conducted. 'I am in total shock. I never gave consent for it to be removed or to be given to someone else.' The family discovered in October 1999 that Harry's heart, brain, kidney and intestine had been retained by the hospital. A second funeral was held the following month to bury the organs with him. Since then the family has been forced to endure the agony of a third funeral after part of Harry's brain was discovered in another collection. (Daily Mail, 27 Jan. 2001)

Generic terms like 'body part', 'tissue' or 'organ' were used very frequently. Less frequent generic (and potentially more 'objectified' or 'scientific') terms included 'samples' (used 24 times), 'specimen' (6), 'pieces' (6), 'material' (4), 'biopsies' (5), 'fragments' (4) 'bits' (3) and 'remains' (2). Some of these less frequent terms were associated with medical sources offering apologies or justifications for removals of body parts, as where 'biopsies' were said to be necessary for treatment or research purposes, or thymus glands were described as no more than 'fragments' of waste. Such attempts to counter press sensationalism by minimizing the emotional associations of body parts were made where medical sources used similes to emphasize the insignificant status of the part removed. Thus a doctor complaining of restrictions in the wake of the organ retention scandals that meant cancer research might be badly affected 'criticised the Department of Health for failing to come up with clear and simple guidance about consent for the use of stored tissue, both slides and pieces of human tissue about the size of a sugar lump taken at surgery' (Daily Telegraph, 17 Dec. 2002). A similar piece in The Times referred to 'samples smaller than a baked bean from tumours in children' (The Times, 24 Jan. 2004), and apologists for thymus gland removal argued that 'Once a child grows up the gland, which is the size of a walnut, becomes redundant' (Daily Mail, 27 Jan. 2001). Another emphasized extreme smallness by the use of a measurement, as where a medical source stressed that the parts needed for research were 'tiny pieces of breast cancer tissue 0.01mm thick' (The Times, 6 Dec. 2003). These represent the struggle over language that the organ retention scandal produced in media reports.
Conclusions

Previous work has suggested that institutions such as biomedicine and bio-science objectify human materials and may also participate in their commodification. Our analysis suggests that it is misleading to imagine that these are the only institutions involved in processes of commodification. In contemporary society, mass media play a significant role in filtering and shaping the reporting of science, health and medicine (Seale, 2003). Media reporting of child organ retention scandals in the UK in recent years has made an independent contribution to the commodification of body parts, recruiting them for use in the manufacture of a media scandal. Ironically, this scandal was itself about the objectification of children’s body parts by bio-science. We have shown press reports to use a variety of rhetorical devices that have contributed to the commodification of children’s human materials, exploiting the potential of these to produce strong emotions in readers as part of an audience-building strategy. The use of horror language served to emphasize the overlap between journalistic and fictional genres. The readiness to fetishize the value of certain body parts, so that their mistreatment may be portrayed as violating norms of decency and respect, provided further emotional intensity. The words used to emphasize the magnitude of organ ‘collections’, their variety, proliferation and wide dispersal all serve to conjure up images of dehumanizing bodily fragmentation on a massive scale.

The appeal of the organ retention story for newspapers is undoubtedly linked to the fact that the body parts of children rather than adults were involved (although the power of the story was such that its later manifestations were able to incorporate instances of retention of adult body parts as ‘scandalous’). Children in today’s society are treated as being of particular social value, and so stories of their mistreatment are unusually attractive to journalists (Franklin and Tutton, 2001), as are stories that appear to violate or spoil the apparent ‘innocence’ of childhood (Dixon-Woods et al., 2005), though idealized media accounts of childhood may be very different from the accounts given by family members to social researchers (Dixon-Woods et al., 2003).

More generally, the appeal of the organ retention story for the mass media lay in its status as a ‘scandal’, in which transgressions of social norms are made public and the focus for moral concern (Lull and Hinerman, 1997). Clearly the press do play an important and often valuable role in exposing the activities of powerful institutions. However legitimate the critique of practices in relation to organ retention and the emotional responses of families to discovery of these may have been (and we have self-consciously avoided making judgements about this), it is clear that the media ‘scandal’ was not solely motivated by public interest;
scandals sell newspapers (Tumber, 2004). The commodification of body parts by the media helped to fuel that scandal. These commercial elements on the media side have been insufficiently recognized by theorists of body commodification.

It could be argued that the worth of human parts to science and medicine is reliant on their being decontextualized and reified, whereas the worth of human parts to the media is their deeply personal, socially valued and at times extremely profound cultural status. Clearly, too, the emotions associated with body parts are commodified by the media and become part of the scandal which drew as much on the exploitation of images of suffering (as in the suffering of grieving parents) as on images of body parts (Burman, 1994; Walter et al., 1995). Thus the effects of medicine and the media are somewhat different, but nevertheless overlap to a significant degree.

Our message about the importance of mass media in the commodification of human materials is not simply a matter of getting the analysis right for academic purposes. Scandals about bio-science have serious consequences for public views of medicine and science and subsequent legislation, just as political scandals undermine institutions and have regulatory and political implications (Tumber, 2004). The irony of the media coverage we have analysed is that it draws on the academic critique of objectification and commodification, invoking many of the ideas about the fragmentation of bodily integrity, the investment of commercial value in human materials, and the threats to personhood associated with the secondary use of body parts that we summarized earlier in this article. This points to the potential for the ‘commodification’ thesis itself to function as a template, in which all issues involving use of human tissues come to be seen as involving illegitimate practices and ethical violations. There is clearly a need to distinguish more precisely where applications of ‘objectification’ and ‘commodification’ to issues involving human tissues should appropriately be made.

The organ retention scandal was exceptionally powerful in its designation of villains, victims, heroes, and its organization of the ‘proper’ responses to events and actions, in particular by polarizing the interests of the medical/scientific community and the lay community. As medical commentators have pointed out, the scandal over organ retention:

... dramatised a shift from one set of monolithic assumptions to another, moving from a medical paternalism to an interpretation of patient and public wishes ... that may not be relevant for everyone. (Dewar and Boddington, 2003: 468)

Politicians during the scandal aimed to align themselves with the apparent victims, and were notable for their unwillingness to defend the medical agenda
and their readiness to take the part of presumed ‘public opinion’ as it appeared to them to be represented in media reports. This then crucially informed the development and implementation of a variety of regulatory conditions to govern medical and scientific behaviour, including a new Human Tissue Act in 2004.

Those representing medical interests have pointed out the practical consequences for biomedical research and medicine that have resulted from the organ retention scandal and the regulatory efforts that have been its consequence. Burton and Wells (2001) and Burton and Underwood (2003) argue that pathologists play an important role in advancing medical education, improving the accuracy of diagnosis and care, and assisting in the resolution of grief through identifying causes of death. These authors and others (McGuone and Kay, 2004) argue that it is likely that the organ retention scandal has contributed to a further decline in hospital autopsy rates, as well as to a widespread demoralization of pathologists. Poor recruitment to the speciality is a consequence (Lilleyman, 2001). It is well recognized that media coverage plays a part in influencing rates of organ donation (Galea and Pegg, 2003), though most people involved in this field believe that this occurs through health care staff becoming less willing to ask for organs from the bereaved rather than any increase in refusals (Matesanz, 2002). Donations of tissue to the UK Children’s Cancer Study Group Tumour Bank experienced a marked decline in the two years following the breaking of the scandal (Seale et al., 2005) and anecdotal evidence (Pritchard-Jones, personal communication) suggests staff unwillingness to make requests may have played a significant role in this. In fact, there is good evidence from surveys of public opinion to suggest that there is considerable public support for the donation of organs and tissue for medical and scientific use (COI Communications, 2003; Andrew Irving Associates, 2002).

Whether one buys into these medical and scientific perspectives or not, it is clear from the present study that knowledge of the commodification of body parts by biomedicine and bio-science is significantly influenced by the institutions of the mass media, whose agenda in this area needs fuller recognition by medical anthropologists and sociologists. The mass media agenda is an independent source of objectification, fuelled in part by commercial interests, in which news about human materials becomes a form of entertainment.

Acknowledgement

This project was funded by the ESRC Science in Society Programme, project number RES–151–25–006.
References

Andrew Irving Associates (2002) Retained Organs Commission: Qualitative Research to Explore Public Perceptions Regarding Retention of Organs and Tissue for Medical Practice, Teaching and Research. URL (consulted October 2005): http://www.nhs.uk/retainedorgans/trrep.pdf

Andrews, L. and D. Nelkin (1998) 'Whose Body Is It Anyway? Disputes over Body Tissue in a Biotechnology Age', Lancet 351(9295): 53–7.

Appadurai, A. (ed.) (1986) The Social Life of Things. Cambridge: Cambridge University Press.

Barnes, C., G. Mercer and T. Shakespeare (1999) Exploring Disability: A Sociological Introduction. London: Routledge.

Beard, J., N. Davis and J. Barr (2002) 'Tissue Donation: What Does It Mean to Families?', Progress in Transplantation 12(1): 42–8.

Bell, A. (1991) The Language of News Media. Oxford: Blackwell.

Best, J. (1987) 'Rhetoric in Claims-making: Constructing the Missing Children Problem', Social Problems 34(2): 101–21.

Best, J. (2001) Damned Lies and Statistics: Untangling Numbers from the Media, Politicians, and Activists. Berkeley: University of California Press.

Bridges, K.M. (2002) 'On the Commodification of the Black Female Body: The Critical Implications of the Alienability of Fetal Tissue', Columbia Law Review 102(1): 123–67.

Burman, E. (1994) 'Innocents Abroad: Western Fantasies of Childhood and the Iconography of Emergencies Disasters', Disasters 18(3): 238–53.

Burton, J.L. and M. Wells (2001) 'The Alder Hey Affair', Journal of Clinical Pathology 54: 820–3.

Burton, J.L. and J. Underwood (2003) 'Necropsy Practice after the “Organ Retention Scandal”: Requests, Performance and Tissue Retention', Journal of Clinical Pathology 56: 537–41.

Dewar, S. and P. Boddington (2003) 'Returning to the Alder Hey Report and its Reporting: Addressing Confusions and Improving Inquiries', Journal of Medical Ethics 30: 463–9.

Dingwall, R. (2001) 'Contemporary Legends, Rumours and Collective Behaviour: Some Neglected Resources for Medical Sociology?', Sociology of Health and Illness 23(2): 180–22.

Dixon-Woods, M., C. Seale, B. Young, M. Findlay and D. Heney (2003) 'Representing Childhood Cancer: Accounts from Newspapers and Parents', Sociology of Health and Illness 25(2): 143–64.

Dixon-Woods, M., B. Young and D. Heney (2005) Rethinking Childhood Cancer: A Multidisciplinary Approach to Chronic Childhood Illness. Buckinghamshire: Open University Press.

Emerson, J. (1970) 'Behaviour in Private Places', pp. 74–97 in H.P. Dreitzel (ed.) Recent Sociology 2: Patterns in Communicative Behaviour. New York: Macmillan.

Everett, M. (2003) 'The Social Life of Genes: Property and the New Genetics', Social Science and Medicine 56: 53–65.

Fowler, R. (1991) Language in the News: Discourse and Ideology in the Press. London: Routledge.

Franklin, S. and R. Tutton (2001) Revisiting Concepts of Gifts in the New Genetics. Report on Wellcome symposium. URL (consulted September 2003): www.regard.ac.uk/research_findings/L18252036/report.pdf

Galea, G. and D. Pegg (2003) 'The Ethics of Donation: Changes are Necessary and Soon', Lancet 362(9388): 932.
HFEA (Human Fertilisation and Embryology Authority) (2004) 'HFEA Agrees to Extend Policy on Tissue Typing', Press Release. URL (consulted 21 March 2005): www.hfea.gov.uk/pressoffice/archive

Katz, P. (1981) 'Ritual in the Operating Room', *Ethnology* 20: 335–50.

Kennedy Report (2001) *Bristol Royal Infirmary Inquiry. The Inquiry into the Management of Care of Children Receiving Complex Heart Surgery at the Bristol Royal Infirmary – Interim Report: Removal and Retention of Human Material (The Kennedy Report).* London: The Stationery Office. URL (consulted October 2005): www.bristol-inquiry.org.uk

Kitzinger, J. (2000) 'Media Templates: Patterns of Association and the (Re)Construction of Meaning over Time', *Media, Culture & Society* 22: 61–84.

Kline, K.N. (1996) 'The Drama of *In Utero* Drug Exposure: Fetus Takes First Billing', pp. 61–75 in R.L. Parrott and C.L. Condit (eds) *Evaluating Women's Health Messages: A Resource Book.* Thousand Oaks: Sage.

Klinenberg, E. (2001) 'Bodies that Don’t Matter: Death and Dereliction in Chicago', *Body & Society* 7(2–3): 121–36.

Laster, K. and P. O’Malley (1996) 'Sensitive New-Age Laws: The Reassertion of Emotionality in Law', *International Journal of the Sociology of Law* 24: 21–40.

Lileyman, J.S. (2001) 'Reflecting on Redfern: What Can We Learn from the Alder Hey Story?', *Archives of Disease in Childhood* 84: 455–6.

Lock, M. (2001) 'The Alienation of Body Tissue and the Biopolitics of Immortalized Cell Lines', *Body & Society* 7(2–3): 63–91.

Lull, J. and S. Hinerman (eds) (1997) *Media Scandals: Morality and Desire in the Popular Culture Marketplace.* New York: Columbia University Press.

McGuone, D. and E.W. Kay (2004) 'The Impact of the Organ Retention Controversy on the Practice of Hospital Necropsy: A Four-year Audit', *Journal of Clinical Pathology* 57(4): 448.

Mara, K. (1887) *Capital.* Moscow: Progress Publishers.

Mateusz, R. (2002) 'Organ Donation, Transplantation and Mass Media', *Transplantation Proceedings* 35: 987–9.

Morrow, L. (1991) 'When One Body Can Save Another', *Time* 17 June: 54–61.

Nerlich, B., S. Johnson and D.D. Clarke (2003) 'The First “Designer Baby”: The Role of Narratives, Clichés and Metaphors in the Year 2000 Media Debate', *Science as Culture* 12(4): 471–98.

Palsson, G. and P. Rabinow (2001) 'The Icelandic Genome Debate', *Trends in Biotechnology* 19(5): 166–71.

Rabinow, P. (1999) *French DNA: Trouble in Purgatory.* Chicago: University of Chicago Press.

Redfern Report (2001) *The Royal Liverpool Children’s Inquiry Report.* London: The Stationery Office. URL (consulted October 2005): www.rlcinquiry.org.uk

Richardson, R. (1987) *Death, Dissection and the Destitute.* London: Routledge and Kegan Paul.

Roeh, I. and S. Feldman (1984) 'The Rhetoric of Numbers in Front-page Journalism: How Numbers Contribute to the Melodramatic in the Popular Press’, *Text* 4: 347–52.

Scheper-Hughes, N. (2001a) 'Bodies for Sale: Whole or in Parts’, *Body & Society* 7(2–3): 1–8.

Scheper-Hughes, N. (2001b) 'Commodity Fetishism in Organs Trafficking’, *Body & Society* 7(2–3): 31–62.

Scheper-Hughes, N. and L. Wacquant (2002) *Commodifying Bodies.* London: Sage.

Seale, C.F. (2003) *Media and Health.* London: Sage.

Seale, C.F., D. Kirk, M. Tobin, P. Burton, R. Grundy, K. Pritchard-Jones and M. Dixon-Woods (2005) 'Effect of Media Portrayals of Removal of Children’s Tissue on UK Tumour Bank', *British Medical Journal* 31: 401–3.

Shakespeare, T. (1994) 'Cultural Representations of Disabled People: Dustbins for Disavowal', *Disability and Society* 9(3): 283–301.

Sharp, L.A. (2000) 'The Commodification of the Body and its Parts’, *Annual Review of Anthropology* 29: 287–328.
Stallings, R. (1990) ‘Media Discourse and the Social Construction of Risk’, Social Problems 37(1): 80–95.
Titmuss, R.M. (1970) The Gift Relationship: From Human Blood to Social Policy. London: George Allen and Unwin.
Tumber, H. (2004) ‘Scandal and Media in the United Kingdom: From Major to Blair’, American Behavioural Scientist 47(8): 1122–37.
Waldby, C., M. Rosengarten, C. Treloar and S. Fraser (2004) ‘Blood and Bioidentity: Ideas about Self, Boundaries and Risk among Blood Donors and People Living with Hepatitis C’, Social Science and Medicine 59: 1461–71.
Walter, T., J. Littlewood and M. Pickering (1995) ‘Death in the News: The Public Invigilation of Private Emotion’, Sociology 29(4): 579–96.

Clive Seale is Professor of Sociology in the School of Social Sciences and Law, Brunel University. His books include Constructing Death: The Sociology of Dying and Bereavement (Cambridge University Press, 1998), The Quality of Qualitative Research (Sage, 1999) and Media and Health (Sage, 2003). His current research interests include the role of the mass media in influencing ideas about health and illness, health messages and gender on the Internet, and communication in primary care and psychiatric settings.

Debbie Cavers is Wiseman Research Fellow in the Division of Oncology, School of Molecular and Clinical Medicine at the University of Edinburgh. She has been involved in a range of projects, including an exploration of families’ and health professionals’ views of donations of tissue to childhood cancer tumour banks and the influence of the media on perceptions of cancer research. Her current research is exploring the unmet needs of people with malignant cerebral gliomas with the aim of developing an improved model of patient care.

Mary Dixon-Woods is Senior Lecturer in Social Science and Health at the University of Leicester, where she leads the Social Science Research Group in the Department of Health Sciences. She has published widely on the sociology of childhood illness, and recently published Rethinking Experiences of Childhood Cancer: A Multidisciplinary Approach to Chronic Childhood Illness (McGraw-Hill, 2005). As well as an interest in development of methods for synthesizing qualitative and quantitative evidence, her research interests include the development of sociologically informed approaches to understanding people’s views and experiences of participating in research, and how these should inform policy and practice.