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FEATURE

CHRISTMAS 2011: DEATH'S DOMINION

Should the skeleton of "the Irish giant" be buried at sea?

It's not too late to grant Charles Byrne's wish, argue Len Doyal and Thomas Muinzer

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The skeleton of Charles Byrne, the famous "Irish giant," has been displayed at the Hunterian Museum in the Royal College of Surgeons for almost 200 years. It played an important part in linking acromegaly with the pituitary gland. In 1909 the American surgeon Harvey Cushing removed the top of Byrne's skull and observed an enlarged pituitary fossa, confirming a relation between the disease and adenoma. This finding has enabled the diagnosis and early treatment of people with acromegaly. At the beginning of this year, further important research led by Marta Korbonits used the DNA from two of Byrne's molars to establish a genetic link between him and several people from a particular area of Northern Ireland.¹ Aside from giving those susceptible to the disease the opportunity for appropriate medical care, this link perhaps helps to explain the long tradition of mythology about giants in Irish history.

Just as Byrne himself did when alive, so his skeleton continues to entertain the public.³ We believe that it should now be

removed from display and buried at sea, as Byrne intended for himself. Others have expressed similar although not necessarily identical views. ⁴⁻⁷ Byrne's burial wish was not fulfilled because the pre-eminent surgeon and anatomist of the time, John Hunter, was determined to possess Byrne's cadaver for his own purposes. ⁸

Byrne and Hunter

Byrne was born in County Londonderry (part of a unified Ireland) in 1761. From a young age it was clear that he had a growth disorder. Historical accounts of his size vary, but his skeleton suggests he was about 7 feet 7 inches tall.⁹

While still an adolescent, Byrne acquired a manager and was exhibited for money as a curiosity. With the prospect of earning more money, he travelled to London in 1780. The civilised, amiable Irishman entertained his audiences and made friends from different social classes. As his condition worsened, however, his health began to deteriorate, with the inevitable

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The authors discuss the fate of the skeleton in a 15-minute video about acromegaly and Charles Byrne's life

associated pain and emotional distress; he regularly used alcohol to relieve his symptoms. In 1783 while drinking at a local tavern he was robbed of his fortune, the then considerable sum of £700. He died a month later, aged 22, probably from the effects of the disease.

Byrne was gripped with fear of Hunter, who used grave robbers ("resurrectionists") to provide him with unauthorised exhumed bodies. Because of Hunter's reputation for collecting unusual specimens for his private museum, Byrne was concerned that Hunter wanted his body for dissection (a fate reserved for executed criminals) and probable display. Byrne's native religious beliefs may have also fuelled his fear.

Byrne told friends that when he died his body should be sealed in a lead coffin and buried at sea. When Hunter found out he managed to bribe one of them and when the friends stopped overnight on their way to bury Byrne in the English Channel, his body was replaced with heavy objects. Hunter thus acquired the body. Possibly out of fear of revenge, he immediately boiled Byrne's body down to the skeleton. He hid it for four years before it became a key feature of his museum, generating badly needed funds.

Hunter died in 1793. Six years later his collection was bought by the British government and eventually given to the Royal College of Surgeons. There it continues to be displayed as part of the Hunterian Museum. Despite knowledge of the skeleton's provenance and formal requests to remove it, the trustees of the museum and the college have not complied, arguably contravening their current policy about such matters. ¹⁰

Are there legal reasons to remove Byrne's skeleton?

There is no evidence to suggest that Byrne lacked the capacity or competence to make an "advance decision" about the disposal of his body. It is unlikely too that Hunter would have been prosecuted, because the human body then as now was not classed as conventional property. That which is not property cannot be stolen. ¹²

Moreover, even when burial instructions are stipulated in a will, an executor appointed to arrange the burial, and monies set aside for the purpose, such wishes are not legally enforceable.¹³ A will is only legally binding with regard to something in it that is recognised as property. A specific form of burial may be requested, as in Byrne's case, but the force of such a request is moral and not legal.

None the less, Byrne's fate would be impossible now. The Human Tissue Act 2004 states that if, before death, people explicitly and competently refuse the use of their bodies for medical research, those wishes must be respected. Part of the background to this legislation was the public's moral outrage that the organs of dead children were being used for medical purposes without the parents' informed consent. (Ironically, similar public outrage was expressed in Byrne and Hunter's time about the activities of grave robbers.) The 2004 act prevents such moral misuse of organs from being repeated by embedding in law the right of people or legally designated proxies to make autonomous decisions about the use of bodies for research.¹⁴ This act cannot, however, be applied retrospectively to Byrne.

Moral arguments about displaying Byrne's skeleton

In recent years debate has been considerable about the moral right of people to determine what happens to their bodies after

death. An important dimension of this debate has focused on organ donation.¹⁵ Given both the scarcity of donor organs (primarily derived from corpses) and the high demand for organs, this controversy highlights the tension between the deceased's right to self determination and the needs of living people.

Some have argued that the needs of those requiring organs ought to trump any conflicting wishes of the deceased. ¹⁶⁻¹⁹ It is maintained that the dead cannot have rights and that although the dead can be said to have interests (for example, respect for their life achievements), these do not carry the same weight as they would in life. For the purposes of saving lives, such arguments conclude that the removal of organs ought to be legalised, irrespective of the deceased's wishes or the emotional distress that this might cause relatives.

Others have adopted a contrary stance. 20-24 The authors of one paper argue that compulsory organ donation might cause significant harm to living people and that there is no easy way to balance this against the fact that others' lives might be saved. 20 Liberal societies place great value on respect for the autonomy of individuals. Significant harm might be caused by forcing people to live with the prospect that, despite their wishes, their bodies will be used for medical purposes. Moreover, such harm may extend after death to the physical and emotional wellbeing of living relatives.

People may decline to be organ donors in the belief that this will negatively influence their afterlife. (Indeed, historically one of these people may well have been Charles Byrne!) If donation was enforced by law, people and their relatives with shared beliefs would have to live with this prospect. Some supporters of compulsory donations argue that refusal to donate organs, say on religious grounds, must be irrational.¹⁶ ¹⁷ However, irrationality of this kind cannot be demonstrated without making disputable presumptions about the meaning of rationality itself—for example, that evidential justification trumps justification based on a belief in divine revelation, provided that both are internally logically consistent.²⁵

In short, since it is known that lives will be at risk if people explicitly refuse to donate organs or other tissue, one school of argument maintains that the duty of rescue always trumps respect for such choices. Another school places priority on the duty to respect autonomous wishes of decedents and relatives about the medical use of bodies. Where no such known risk exists, however, we suspect that these otherwise disputing authors would agree that the prior wishes of the deceased about the disposal of his or her body should be respected in death as far as is practically possible. Where there is such agreement about respect for choice, its moral foundation is more or less the same as it was in Byrne's time.

The implications of this debate for Byrne's skeleton

We agree with those who argue that, all things being equal, everyone should carry donor cards and do their best to ensure that this is respected by their relatives. Indeed we accept that consent to donate should be implied in the absence of explicit refusals to do so. ²⁶ The fact is that Hunter knew of Byrne's terror of him and ignored his wishes for the disposal of his body. What has been done cannot be undone but it can be morally rectified. Surely it is time to respect the memory and reputation of Byrne: the narrative of his life, including the circumstances surrounding his death.

The Hunterian Museum and the Royal College of Surgeons' possession of Byrne's skeleton may have led to beneficial medical outcomes. However, as a justification for not burying his skeleton, that case is no longer tenable. Past research on Byrne did not require the display of his skeleton; merely medical access to it. Moreover, now that Byrne's DNA has been extracted, it can be used in further research. Equally, it is likely that if given the opportunity to make an informed choice, living people with acromegaly will leave their bodies to research or participate in it while alive, or both. Finally, for the purposes of public education, a synthetic archetypical model of an acromegalic skeleton could be made and displayed. Indeed, such skeletons are now used in medical education throughout the world.

It follows then that our arguments and those of others make the case for the removal and burial of Byrne's skeleton. ²⁷⁻³¹ As Soren Holm, the first bioethicist to raise this issue, originally stated: "we have clear evidence of the desires of the deceased with regard to a dignified treatment after death, and there seems to be no present countervailing scientific or other gain to achieve by not following the wishes of Charles Byrne."⁴

Last rites

As a sign of respect for Byrne's original desires, his skeleton should be buried at sea as part of a ceremony commemorating his life. We recommend that the Hunterian Museum and the Royal College of Surgeons organise this burial, along with a conference on related legal and ethical issues. At the very least, we suggest that more complete information is provided about the background of the acquisition and display of Byrne's skeleton so that visitors can make a more informed judgment about the moral implications and appropriateness of its continued display.

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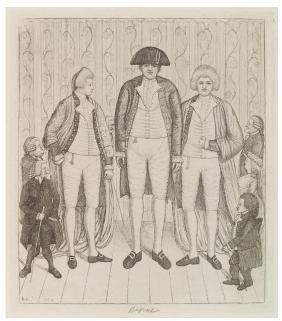
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- Chahal HS, Stals K, Unterländer M, Balding DJ, Thomas MG, Kumar AV, et.al. AIP mutation in pituitary adenomas in the 18th century and today. N Engl J Med 2011:364:43-50.
- 2 Parry V. How an Irish giant and an 18th-century surgeon could help people with growth disorders. The Guardian 2011 Jan 11.
- 3 The tragic story of Charles Byrne "the Irish giant." 2011. www.thetallestman.com/pdf/ charlesbyrne.pdf.
- 4 Holm S. The privacy of Tutankhamen—utilising the genetic information of stored tissue samples. Theor Med 2001;22:437-49.
- McNally F. An Irishman's diary. The Irish Times 2008 Sep 10.
- 6 O'Toole F. Cultural treasures that are stolen goods. The Irish Times 2009 Mar 7.
- 7 Brennan M. Letter of Mr Michael Brennan to Ricorso. 2009 Mar 25. www.ricorso.net/rx/ az-data/authors/b/Byrne_C/xtras/xtra1.
- 8 Moore W. The knife man. Blood, body snatching and the birth of modern surgery. Bantam Books, 2006:397-428.
- 9 Frankcom G, Musgrave JH. The Irish giant. Duckworth, 1976:104.
- 10 Royal College of Surgeons. Letters relating to the pursuit of the matter by Mr Michael Brennan www.ricorso.net/rx/az-data/authors/b/Byrne_C/xtras/xtra2.
- 11 Royal College of Surgeons. Museum acquisition and disposal policy. www.rcseng.ac.uk/ museums/docs/acquisition_disposal_policy_05.pdf.
- Mason J, Laurie G. Consent or property? Dealing with the body and its parts in the shadow of Bristol and Alder Hey. Mod Law Rev 2001;64:710-29.
- 13 Conway H. Dead, but not buried: bodies, burial and family conflict. Leg Stud 2002;23:423-52.
- 14 Liddell K, Hall A. Beyond Bristol and Alder Hey: the future regulation of human tissue Med Law Rev 2005;13:170-223.
- 15 Hamer CL, Rivlin MM. A stronger policy of organ retrieval from cadaveric donors: some ethical considerations. J Med Ethics 2003;29:196-200.
- Harris J. Law and regulation of retained organs: the ethical issues. Leg Stud 2002;22:527-49.
- 17 Harris J. Organ procurement: dead interests, living needs. J Med Ethics 2003;29:130-4.
- 18 Emson HE. It is immoral to require consent for cadaver organ donation. J Med Ethics 2003;29:125-7.
- 19 Savulescu J. Death, us and our bodies: personal reflections. *J Med Ethics* 2003;29:127-30.
- 20 McGuinness S, Brazier M. Respecting the living means respecting the dead too. Oxf J Leg Stud 2008:297-316.
- 21 Brazier M. Retained organs: ethics and humanity. *Leg Stud* 2002;22:550-69
- Wilkinson TM. Last rights: the ethics of research on the dead. J Appl Philos 2002;31-41.
- 23 Giordano S. Is the body a republic? *J Med Ethics* 2005;31:470-5.
 24 Campell AV. The body in bioethics. Routledge-Cavendish, 2009:95-118.
- Gutting G. What philosophers know. Cambridge University Press, 2009:111-21.
- 26 British Medical Association. Organ donation briefing paper. 2011. www.bma.org.uk/ethics/ organ_transplantation_donation/organdonationbrief.jsp.
- 27 Gallagher S. Museums and the return of human remains: an equitable solution? Int J Cult Prop 2010;17:65-86.
- 28 Mantel H. The Giant, O'Brien. Holt, 1998.
- Donaldson M. Miracle fruit. Lagan Press, 2010.
- 30 Culture northernireland.org. Free the Irish giant! www.culturenorthernireland.org/article/ 3709/free-the-irish-giant-.
- 31 Malcolm J. The ballad of Charles Byrne. Sands of time. Original release Nov 18, 2008.

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Figures



Charles Byrne and the Knipe twins, with some lesser mortals for comparison



The hunter and the hunted. Joshua Reynolds's portrait of John Hunter, with Byrne's skeleton hanging at the top right



Waiting for release. Byrne's skeleton biding its time in the Hunterian Museum of the Royal College of Surgeons