

Chris Barnard: South Africa's fallible king of hearts

AUTHOR:

Marina Joubert¹

AFFILIATION:

¹Centre for Research on Evaluation, Science and Technology (CREST), Stellenbosch University, Stellenbosch, South Africa

CORRESPONDENCE TO:

Marina Joubert

EMAIL:

marinajoubert@sun.ac.za

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On 3 December 1967, a South African surgeon stunned the world when he performed the first human heart transplant in Cape Town's Groote Schuur Hospital – a dramatic story that has been told numerous times. Here, I will focus on the central character – Chris Barnard – and his rise to global celebrity status.

Barnard started from humble beginnings. He was born on 8 November 1922 in Beaufort West and grew up in a poor family. After school he studied medicine at the University of Cape Town and obtained his MSc and PhD from the University of Minnesota. He was 45 years old when he made medical history and was swept up by a vortex of worldwide fame. His bold surgical feat triggered his rise to celebrity, but there was more to Barnard's lasting allure.¹

Scholars who have studied the phenomenon of celebrity within science suggest that a contingent association of factors contribute to the process of celebrification.²⁻⁵ When all these factors occur simultaneously, serendipity takes over and it appears as if an invisible hand runs a publicity campaign on behalf of the scientist.³ Barnard's life was a case in point.

How Barnard measures up to Goodell's view of visible scientists

In the early 1970s, American sociologist Rae Goodell conducted a landmark study of visible scientists.² Deploying the concepts of 'visibility' and 'celebrity' synonymously,⁶ Goodell classified a new type of public scientist that emerged at the time, mainly as a result of the rising power of the mass media. She shows how media criteria begin to influence science itself and notes how visible scientists use the mass media to influence public opinion and policy. Goodell describes visible scientists as revolutionaries who question established theories and advocate for change. They are strong and assertive individuals who dominate conversations and thrive at the centre of attention; they are mavericks, tilting with the establishment; they are gladiators and even gadflies in their professions and society at large.²

Chris Barnard was the only South African scientist identified in Goodell's study and fitted her characteristics of a visible scientist almost perfectly. He undoubtedly challenged existing norms in medicine and was boldly innovative.^{7,8} Colleagues described him as intense, assertive, determined, ambitious and hungry for success, but also volatile, stubborn, ruthless, impatient, unreasonable and with a killer instinct; he was notorious for his temper, in and outside the operating theatre.^{1,7}

Goodell proposes that visible scientists share five media-focused characteristics that make them attractive to journalists and heighten their conspicuousness as protagonists in the public sphere: they have a hot topic, they are controversial, they are articulate, they have a colourful image, and they enjoy credibility within science. Based on a study of Einstein's rise to fame, Missner³ suggests a similar set of qualities that are needed for scientists to become celebrities: they make a good impression, they give quotable quotes, they make themselves available for interviews and photos, they touch the right chords with the public, and they have the right appearance and personality. Barnard's conduct and persona matched these characteristics and qualities suggested by Goodell and Missner.

Transplanting a human heart was a courageous world-first and not without controversy. Other surgeons had invested more time in preparing for this operation, but Barnard was the first to take the risk; he had the courage and heroic attitude – some would say audacity – that was needed to proceed.^{9,10}

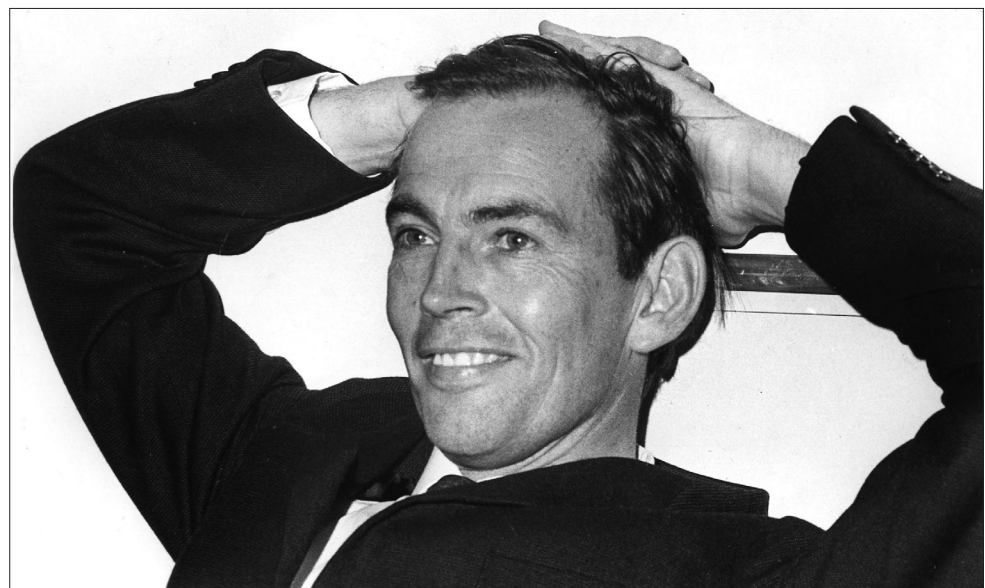


Photo: Barnardstamboom.org

Chris Barnard

When the world's media descended on Groote Schuur Hospital, Barnard's charisma and media flair ensured that journalists focused on him. His good looks and telegenic smile were media magnets, to the extent that journalists paid only scant attention to the other members of the transplant team.^{1,10} Barnard himself later remarked that if he had 'been fat and bald', the media interest would have died down sooner.¹

Amidst the avalanche of media attention, Barnard went to extraordinary lengths to accommodate journalists' demands. He happily granted interviews, posed for photos and supplied explanations. He took control of his media appearances and handled even the most difficult interviewers expertly.^{1,10-14} His confidence when facing television cameras and live studio broadcasts was remarkable, given that he had no media training and hardly any media experience. (In 1967, television had not yet been introduced in South Africa.) During several publicity tours soon after the surgery, the media fell in love with him and rapidly made him world famous. In his memoirs, *One Life*¹⁴, Barnard admitted that he found it flattering to be at the centre of so much attention.

Even before the heart transplant, Barnard enjoyed considerable academic recognition, but his breakthrough cemented his reputation and immortalised his name in medical history.^{1,7-13} His article describing the surgery was published in the *South African Medical Journal* in the same month, on 30 December 1967¹⁵, and became one of the most cited articles in the field of cardiovascular medicine¹¹. In addition to more heart transplants, Barnard went on to do innovative work on prosthetic heart valves and piggy-back heart transplants, as well as the treatment of rare congenital heart defects in children. He authored or co-authored more than 200 articles in medical journals.¹⁶

In cases in which scientists face opposition and peer criticism, the protective effect of a solid academic reputation is well documented by scholars like Goodell² and Rödder¹⁷. It is evident that Barnard's academic credibility and public acclaim protected him from critical peers and disapproving bosses, to the extent that he became an untouchable thorn in their sides.¹

An intimate portrayal of Barnard's vices and virtues is presented in *Barnard by Those Who Know Him*.⁷ In this book, Cooper¹⁸ describes Barnard as multi-talented, courageous and charismatic, with an unforgettable blend of vision, intelligence, charm, warmth and humour, tempered by human frailties. Lillehei¹⁹ commends Barnard for his prodigious memory, intensity, seriousness and courage, but notes that he could provoke a rather intense dislike among some people because he was outspoken and had unconventional ideas. Frater²⁰ captures the contradictory aspects of Barnard as follows:

He was then, at once, rough-at-the-edges poor boy and charming sophisticate, democrat and tyrant, selfless healer and boorish egotist, lover and Don Juan, shrewd parvenu and naive acceptor of glitterati adulation – but, above all, surgical visionary and simply the most unforgettable character of the second generation of cardiac surgeons.

Matching Barnard against a framework for scientific celebrity

Based on studies of celebrity, Fahy and Lewenstein²¹ list six salient features that characterise celebrity scientists, all clearly illustrated by Barnard.

The first is media coverage that blurs the celebrity scientist's professional and private lives. In Barnard's case, media coverage moved on quickly from his medical achievements to his personal affairs – and there was ample material for the media to report on. He was married three times, at the ages of 25, 47 and 66. His second wife, Barbara Zoellner, daughter of a millionaire, was 19 when she married him. His third wife, Karin Setzkorn, a model, was 24 on their wedding day. Barnard had six children – two from each of his three marriages; his eldest child was born when he was 27, his youngest when he was 74. To top it all, Barnard had a reputation as a philanderer.¹ He did little to hide a series

of flirtations and affairs and self-confessed to infidelities and racy sexual exploits in *The Second Life*²² – his post-fame memoirs.

The second characteristic of celebrity scientists is that they become tradable commodities. Barnard made some money and raised funding for research from his numerous public appearances.¹⁶ He wrote 18 books, including popular health books, autobiographies and novels, and contributed a weekly column to the *Cape Times* for many years. Later in life, he became involved in business ventures including several restaurants. He lent his name to promoting anti-ageing creams and for advertising products ranging from breakfast cereals for Kellogg's to engine oil for the Ford Motor Company.

Thirdly, the public image of a celebrity scientist is constructed around discourses of truth, reason and rationality. People were collectively fascinated by the idea that a human heart – metaphorically deeply connected to life and love – could be transplanted, but Barnard repeatedly explained that the heart was nothing more than a pump.¹ The ethical debates about the morality of removing a viable human heart were more difficult to handle and Barnard was well aware of the potential damage to his reputation around this issue.^{11,23} Barnard claimed that he waited for the heart of the donor, Denise Darvall, to stop beating before removing it, but there are at least three different accounts¹ of how long it took for Darvall's heart to stop beating, all signed off by Barnard himself – in the hospital records, in the chronology of the surgery published in the *South African Medical Journal*¹⁵ and in his autobiography *One Life*¹⁴. The heart transplant highlighted how Barnard benefitted from a less restrictive legal definition of clinical death in South Africa compared to that in the USA.^{10,24} It would take another 10 years before the concept of brainstem death, which is fundamental to transplant surgery today, made it more acceptable to remove a beating heart.²⁴

A structural relationship with the ideological tensions of their times is the fourth characteristic of scientific celebrity. This was evident in the way Barnard was co-opted to improve South Africa's image around the world at a time when the country was seen as backward because of its apartheid politics.^{1,14,16} The Nationalist politicians asked Barnard to act as an ambassador for his country. A patriot at heart, Barnard mostly obliged on the world stage. At home, however, he opposed apartheid. He refused to segregate his patients according to race and inserted his political views into his public speeches and newspaper column. This led to clashes with hospital authorities and reprimands from politicians, including a warning from then State President Nic Diederichs that he could no longer protect him. The government withdrew Barnard's VIP privileges and use of private lounges at South African airports.²⁵

A fifth characteristic of celebrity in science relates to tensions between scientific status and public renown. While Barnard's surgical genius and research excellence were recognised in academic circles^{8,13,18,26}, these were significantly overshadowed by his public acclaim when he was hailed as a hero, a heart-throb, a superman and even a miracle worker.^{1,27,28} Following the heart transplant, a world of opportunities opened up to Barnard, unlike anything bestowed on a surgeon before.¹ In addition to a flood of letters, telegrams, gifts and telephone calls and a constant stream of curious onlookers in the street outside his family home,²⁹ he was inundated with invitations to lecture around the globe and huge numbers came to listen to him. Models, film stars, sporting heroes, royalty, religious leaders and politicians lined up to meet him. He met and dined with global icons, including Pope Paul VI, actress Sophia Loren, Princess Grace of Monaco and Princess Diana. For years, he drew huge crowds of people desperate to touch him or get hold of an autograph or photo. He was officially recognised for his pioneering work in the field of cardiac surgery by 60 countries and his numerous accolades included 15 honorary doctorates and 133 medals.^{1,14,29}

Barnard's peers, however, thought that his playboy image²⁷ was not appropriate for a serious surgeon and they were dismayed at his excessive publicity and the way he pandered to the press. He was accused of indulging in the cult of his own personality²⁸ and being brazenly dedicated to his own ego, of being manipulative, reckless, and even a talented psychopath¹.

Barnard also conformed to the sixth characteristic of scientific celebrity, namely commenting on areas outside their realm of expertise.²⁹ He was a popular speaker on luxury ocean cruises and appeared in several advertisements. Towards the end of his career, Barnard attracted criticism when he accepted several financially attractive offers from the commercial world¹, especially when he became an advisor for a controversial research programme on so-called 'rejuvenation' therapies at a Swiss clinic and helped to promote their anti-ageing cream²⁹.

Barnard is also a perfect fit for the profile of a celebrity scientist suggested by Ganetz³⁰ based on his studies of science celebrity in the context of the Nobel Prize. The typical science celebrity, Ganetz says, is a highly educated white man who has achieved fame as the result of competition with others in the same field. The intense competition around heart transplant surgery, and Barnard's unyielding determination to win this race, is possibly one of the lesser-known aspects of his career.⁹

In 1967, several leading surgical teams around the world were poised to tackle a human heart transplant to the extent that they announced their readiness and optimism.²⁴ Barnard was acutely aware of these endeavours and kept an anxious eye on his rivals.¹ He was intensely concerned that he would fall behind because of the long waiting periods before new medical journals were available in South Africa and later admitted that the anxiety leading up to the heart transplant caused a painful flare-up in the arthritis that had been affecting his hands for some time.^{1,14}

Barnard faced another uphill battle: he needed a patient for the procedure and for this he had to convince his superiors, in particular chief cardiologist Val Schrire, that he was ready to transplant a human heart.^{1,14} Schrire eventually suggested Louis Washkansky, a critically ill 53-year-old man in the final stages of heart failure. Barnard immediately transferred Washkansky to his ward and put his surgical team at Groote Schuur on high alert. Each team member had to provide an all-hours contact number and had to be immediately available around the clock.³¹ A tragic accident on 2 December 1967 delivered what Barnard was waiting for. A 25-year-old woman, Denise Darvall, was brain-dead after being hit by a speeding car, but her heart was beating strongly, thereby qualifying her to become the first human heart donor in history.

Barnard's main competitors in the race to transplant a human heart were three American surgeons – Norman Shumway, Richard Lower and Adrian Kantrowitz – as well as Donald Longmore in the UK.⁹ With their extensive research into perfecting heart transplant techniques, these leading surgeons probably had little inkling of Barnard's intentions and ambitions. They must have been stumped by the news that a fairly unknown surgeon at the tip of Africa was bold enough to be the first to put the technique into practice. Following Barnard's victory, American surgeons generally downplayed Barnard's achievement, emphasising that he was merely lucky to have found the right donor at the right time.¹⁰ The suggestion that Barnard was only able to perform his groundbreaking surgery because he stole Shumway's ideas surfaced from time to time, but Barnard dismissed this accusation as sour grapes.¹ Shumway admitted that he never liked Barnard and that it seemed cruel to have lost the race to him of all people.⁹

A love-hate relationship with the media

Many factors fuelled Barnard's rise to celebrity, but his ability to exploit the mass media played a key role. His candour, sense of humour and readiness for impromptu media briefings delighted journalists. These attributes, together with the fact that he did not use medical jargon when he talked to the press, were in stark contrast with the behaviour of his colleagues and the scientific norms of the time. In the process, Barnard probably did more than any of his peers to popularise medicine and tear down the veils of secrecy around medical procedures.¹

In addition to extensive newspaper coverage, Barnard featured on the covers of *Life*, *Newsweek* and *Time* magazines within 3 weeks after the historic surgery. He was the focal point of several major live television broadcasts, and millions tuned in to see him on the CBS television show 'Face the Nation' on 24 December 1967 and a special edition of a BBC1 television show called 'Tomorrow's World' on 2 February 1968.

Later, however, Barnard alleged that his relationship with the media was strained at times.³² He complained about the quality of medical journalism, the demands of the media and the invasion of his privacy.^{22,32} He claimed that the skewed publicity damaged professional relationships and blamed the intrusive media coverage for harming the trust relationships between teaching hospitals and the communities they served. He also believed that the press coverage was responsible for a spate of ill-fated heart transplants that caused the operation to lose respectability as a therapeutic procedure. Barnard acknowledged that Groote Schuur Hospital was totally unprepared for the media chaos that ensued after the first heart transplant, but insisted that it would have been futile to try and moderate the publicity, as the media interest was unstoppable. He admitted, though, that the media interest resulted in research funding and institutional prestige for Groote Schuur, as well as political awareness of medical advances.^{1,14}

A lasting South African legend

Barnard remained in the public eye until his death on 2 September 2001, when he suffered a severe asthma attack while alone on holiday in Cyprus. Now, in 2017, public fascination with the historic heart transplant is peaking again around the 50th anniversary of this event.

Inside the walls of Groote Schuur Hospital, a series of iconic tableaux and wax lookalikes capture the drama of the surgery and subsequent events, with the hearts of Washkansky and Darvall on public display (see <http://www.heartofcapetown.co.za>). Not far away, the Christiaan Barnard Memorial Hospital is a living tribute to Barnard and his medical milestone, with photos and artefacts on display in the hospital passages, and a huge plywood sculpture of an empty chest cavity suspended from the roof of the hospital foyer. Karoo Films is working on a feature film (see www.barnardfilm.com).

Reflecting on Barnard's life, Cooper¹⁸ recalls a Native American proverb: 'A man is not dead until the last person who remembers him dies.' If this is so, Cooper says, Chris Barnard will certainly be alive for many, many years.

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