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ARENAS OF TRUTH MAKING

THE HIV/AIDS CORRELATION AS A CASE OF CONTESTED FAC-  
TICITY IN SCIENCE, POLITICS, AND JOURNALISM

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Certainty and consensus go hand in hand with uncertainty and debate. The history of the HIV/AIDS correlation is no exception to this rule. At several points in time, the identification of HIV as the causal agent of the syndrome has been explicitly questioned. In 1987, molecular biologist Peter Duesberg launched a frontal attack on the HIV/AIDS correlation. This episode has been covered by Steven Epstein in his canonical STS study *Impure Science: AIDS, Activism and the Politics of Knowledge* (1996). Focusing on Duesberg's intervention, and on the challenges to drug development and approval by AIDS activists, Epstein has compellingly framed these controversies to show how scientists gain credibility. To do so, he made use of Bruno Latour's black box metaphor by exposing the exchange between Duesberg and mainstream science as a case of *insider* versus *outsider* politics.

In *Science and Action* (1987), Latour argued that scientific theories become black boxes through a process of competition.<sup>1</sup> This process involves building networks of references until people start to refer to a theory as a fact by using it to build their theories or facts on. The moment a claim

becomes a fact, or black box, is when it stops being isolated as more and more people refer to it. When an outsider questions a black box, it can be reopened. This occurs when those who previously raised no questions about its content are provoked to defend its status as a fact. Consequently, the theory becomes visible again because it has become subject of discussion. During such moments, the stability of a fact is determined by the strength of associations of agreement between actors and their skill in mobilizing allies to maintain facticity.

The history of AIDS research laid out in this article does indeed show such confrontations in which group work plays a major role. As described by Epstein, the first was Duesberg's 1987 attack on the HIV/AIDS correlation. The resulting controversy occurred in a scientific arena. But two subsequent interventions after the publication of Epstein's *Impure Science* have taken the HIV/AIDS black box outside the scientific arena. This happened when in 2000 South African President Thabo Mbeki intervened by backing Duesberg's critique and making it the basis of his health policies. And in March 2006, American AIDS journalist Cecilia Farber raised doubts about HIV/AIDS in a critical article in *Harper's Magazine*. None of these interventions was successful in dissolving the network of tight associations between actors of the AIDS community that underpins the facticity of the HIV/AIDS correlation. But each of them forced the AIDS research community to respond and re-defend it by mobilizing arguments and allies.

These interventions will be described in Latour's terms of the opening and closing of black boxes. But his vocabulary is less suited for highlighting qualitative differences in the mechanisms of fact-making in differing social arenas. The importance of such differences for understanding public debates involving scientific experts has been the subject of numerous STS studies. Sheila Jasanoff's work has pinpointed and taken into account the interplay of diverging cultures of establishing certainty in science, a judicial setting, and politics (Jasanoff 1992, 1995, 2004). Zooming in on specific moments of interaction between scientists in their habitat and as experts in courtroom settings, Michael Lynch has exposed the contextual nature of truth making strategies (Lynch & Brannigan 1987; Lynch 1998; Lynch & Jasanoff 1998; Lynch, Cole, McNally, Jordan 2008). And Brian Wynne has studied confrontations between scientific experts and lay audiences in a

number of public debates. In doing so, his work has stressed the importance of social context for understanding how expert knowledge is received and reconstructed by public groups (Wynne 1996; Wynne, Stilgoe, Wilsdon 2005).

A ‘social history of truth’ that frames the ways in which truth has been established in differing contexts has also been a major theme in the work of Steven Shapin (1994). He has neatly illustrated its value by an imagined conversation between a boy and his mother that Latour had brought up in previous work. The mother tells her boy that ‘an apple a day keeps the doctor away’, but her son counters this claim citing a string of scientific studies disproving it. To Latour this means a victory for the boy, as his network of allies overpowers that of his mother. But Shapin points out that in a family setting, a young kid’s scientific citations will not have much effect *vis-à-vis* his mother’s authority, just like the mother’s proverbs would amount to little in a debate with expert nutritionists. Making such utterances betrays a failure to understand the decorum that governs how truth-claims are handled in a particular setting (Shapin 2001: 742-43).

This variety in the decorum of handling truth-claims is clearly illustrated by the different contexts in which the HIV/AIDS correlation has been debated, namely in science, in national politics and in journalism. I will study these three different settings, and follow how this fact has been challenged and (re-)defended, and by what customs and standards of fact-making and truth-finding these exchanges were governed. The first instance involves a debate within the sphere of experts, the second discussions in policy-making settings (in the setting of a recently liberated South Africa), and the third a set of exchanges in the world of investigative journalism. While the truth about AIDS is a premium product in all of these contexts, it is *not* the intended product of this excursus. Any attempt to establish the truth about AIDS or to clarify the debate is a task for scientific experts. My aim as observer is narrower, namely to *re-examine* a series of public controversies in the history of the HIV/AIDS correlation from the opposing angles presented by Latour and Shapin. In doing so, I intend to expose *how* truth is achieved and *how* norms of acceptability are governed by specific forms of decorum in different social arenas.

A scientific challenge to Gallo’s hypothesis

Two years after clinicians in New York and California observed an unusual clustering of rare diseases among young gay men, Robert Gallo’s ‘discovery’ that a retrovirus<sup>2</sup> was the cause was introduced to the U.S. public in 1984.<sup>3</sup> It was the first trigger for a sudden focus by AIDS researchers on Gallo’s retroviral hypothesis. One month later the process of black boxing further ignited when Gallo’s research group published four papers in *Science*, which showed that a retrovirus called HTLV-III was the cause of AIDS. Consequently, scientific research on retroviruses as the causal agent of AIDS expanded rapidly during the mid-eighties. From a couple of dozen publications in 1982, the body of scientific literature grew by more than 1,100 in 1984, 1,600 in 1985 and 2,700 in 1986 (Epstein 1996: 79). Based on content analysis of scientific papers published during this period, Epstein offers further evidence of a transformation: ‘The percentage of papers concerned with Gallo’s retrovirus soared from 2 percent in 1983, to 5 percent in 1984, to 20 percent in 1985, to 37 percent (almost 2,000 publications) in 1986’ (1996: 80). While research on Gallo’s retrovirus as a causal agent of AIDS increased, Epstein notes that ‘Expressions of doubt or skepticism – let alone support for other hypotheses – were extraordinarily rare from 1984 to 1986’ (1996: 83). In other words, the number of scientists who referred to Gallo’s hypothesis without raising serious questions about its validity had drastically increased between 1984 and 1986. As the HIV/AIDS correlation had become widely accepted without noteworthy challenges, the hypothesis turned into a fact.

This was about to change when in 1987 the prestigious *Cancer Research* journal published a paper titled ‘Retroviruses as carcinogens and pathogens: Expectations and reality’. The first part of the paper attacked the claim that Gallo’s retroviruses are the cause of leukemia. The second part attacks the evidence for the pathogenic potential of the retrovirus named HTLV-III (better known as HIV). After several pages assessing the available literature on the relationship between HIV and AIDS, five challenges to the claim that HIV is the causal agent of AIDS are proposed:

‘At this time the hypothesis that the virus causes AIDS faces several direct challenges. (a) First it fails to explain why active antiviral immunity,

which includes neutralising antibody and effectively prevents virus spread and expression, would not prevent the virus from causing a fatal disease. This is particularly paradoxical since anti-viral immunity or ‘vaccination’ typically protects against viral pathogenity. (b) The hypothesis is also challenged by direct evidence that the virus is not sufficient to cause AIDS. (...) (c) The hypothesis also fails to resolve the contradiction that the AIDS virus, like all retroviruses, depends on mitosis for replication yet is postulated to be directly cytotoxic (section D). (d) The hypothesis offers no convincing explanation for the paradox that a fatal disease would be caused by a virus that is latent and biochemically inactive and that affects less than 1% and is expressed in less than 0.01% of susceptible lymphocytes (section D).’ (Duesberg 1987: 1214)

These challenges were forwarded by Peter Duesberg, a professor of molecular and cell biology. At the time he was not known for his involvement in the field of AIDS research, but he had earned his scientific credits in 1969 for his research on retroviruses which led him to become one of the first persons (at the age of 33) to isolate a cancer-causing gene. Three years later he earned tenure at the University of California, Berkeley. In 1985 he was elected to the National Academy of Science and one year later he received the prestigious Outstanding Investigator Grant from the National Institute of Health. With such an impressive record of accomplishment, Duesberg’s paper seemed weighty enough to provoke a general discussion.

One of the earliest supporters of Duesberg’s critique was Harvey Bialy, an American molecular biologist and research editor of the *Nature Biotechnology* journal. In his book *Oncogenes, Aneuploidy and AIDS: A Scientific Life & Times of Peter H. Duesberg* (2004), Bialy reports that during the months after the publication of Duesberg’s paper he phoned several colleagues to illicit their opinions. One of them was Anthony Fauci, the director of the NIAID. The black box opened when Fauci was willing to consider Duesberg’s arguments more thoroughly. They talked about argument ‘b’, which stated that it is impossible to account for the tiny amounts of viral gene expression in infected T-cells of AIDS patients. Fauci agreed with Bialy that this was the best point Duesberg had made. But in defense of Gallo’s hypothesis he argued that ‘there were now reli-

able techniques showing significant viral activity that coincided with a drastic depletion of T-cells’ (2004: 73). Bialy was not convinced by Gallo’s argument. To stimulate a public discussion he wrote an editorial commentary in *Biotechnology Nature* in which he pointed at ‘an obvious and fatal flaw in the first generation of new techniques measuring viral presence by means of surrogate chemical markers’ (2004: 74). His attempt to stir up discussion was to no avail; none of the scientists from the AIDS community responded.

But in spring 1988, the black box briefly reopened during a panel discussion promoted by the American Foundation for AIDS Research at the George Washington University. The event was presented as a ‘A scientific forum on the etiology of AIDS’ to ‘critically examine the evidence that the human immunodeficiency virus (HIV) or other agents give rise to the disease complex known as AIDS’ (Cited in Bialy 2004: 75). A public reassessment of Gallo’s hypothesis seemed inevitable, but AIDS journalist John Lauritsen reported that the occasion was more about defending Gallo’s hypothesis than critically examining the evidence. His reading of the event was provoked by a confrontation between Duesberg and William Haseltine, Chief of the Laboratory of Biochemical Pharmacology at the Dana Farber Cancer Center of Harvard. Lauritsen recounts that during his presentation on the virology of AIDS, Haseltine had argued against Duesberg’s claim that ‘during the later phases of the disease he does not see free virus in circulation’ (2004: *Ibid.*). He had done so by means of a graph indicating a rise of ‘either virus titer or viral antigens directly detectable’ as the disease progresses. In reaction, Duesberg asked why there were no units on the slide. Haseltine refused to answer the question (2004: *Ibid.*). Duesberg intervened once more during the question session by asking if it was an accident that the slide had no units on it. For a second time Haseltine was unable to provide an answer. During the evening after the meeting, Dr. Harris Coulter revealed that the graph was prepared to illustrate ‘a theoretical possibility’ (2004: *Ibid.*). In other words, during an informal moment it suddenly appeared as if the HIV/AIDS theory was nothing more than a theory. Despite a brief discussion about the evidence of Gallo’s hypothesis, no further investigations took place.

Bialy played a key-role in initiating another moment when the black box opened in an informal setting. At breakfast at an inaugural symposium to the Institute of Molecular and Cell Biology in Singapore, Bialy asked George Poste to encourage *Bio/Technology's* editor Douglas McCormick to publish an article by Duesberg titled 'A Challenge to the AIDS establishments'. Poste supported publishing the article. As it was discussed over breakfast, Bialy recounts that Duesberg's claim that there is not enough virus present to cause depletion of the entire immune system received a great deal of attention. Bialy asked Poste if he was interested to attend a meeting with prominent virologists and other scientists, including Duesberg, to discuss the pathogenesis of HIV. He and several others agreed to take part. The meeting almost took place at the White House when James Warner, who worked for Reagan as a senior policy analyst, phoned Bialy to ask if the meeting could take place there. Bialy agreed and he asked Warner to invite Anthony Fauci and Robert Gallo to attend the meeting. The fact that it was scheduled to take place in Washington could have resulted in a tremendous credibility boost for Duesberg's view on AIDS; direct involvement from political interests meant huge research funds and promotion. Bialy reports, however, that Warner cancelled the meeting after 'Fauci had thrown a small fit' when he was invited (2004: 83).

Bialy's lobbying for Duesberg's cause had ignited a few sparks of interest in his arguments. During informal moments, several prominent representatives from the scientific community were stimulated by his arguments to question or defend the HIV/AIDS theory. Yet these were not sufficient to dissolve the established consensus on the validity of Gallo's hypothesis. As Latour points out, in order for that to happen scientists must refer to your theory and use it to build their facts upon. The best place for that is not during evening gatherings or breakfast discussions, but in prominent journals. On 17 November 1988, in a letter in reaction to Duesberg's manuscript repeating his views on HIV/AIDS, the editor of *Nature*, John Maddox, explicitly confirmed that his intervention was too controversial. Maddox wrote that he was 'in many ways sympathetic' to Duesberg's claims, but he refused to publish it (Cited in Bialy 2004: 125). He made it clear that publishing them would 'mislead' the public and perhaps lead it to believe that 'what has been said so far about the cause of AIDS is a pack of lies' (2004: *Ibid.*).

In other words, Duesberg's claims were seen as too controversial by the scientific experts. When published, they would expose a broader audience to the uncertainties of a hypothesis-turned fact. Since 1984, the HIV/AIDS correlation had become the foundation for scientific AIDS research and public policies dealing with the epidemic. The risks in terms of the consequences for the public when it starts to doubt the correlation were simply too great. Nonetheless, during several informal moments, Duesberg's claims were received with interest by prominent scientists in the AIDS community. But their refusal to publicly acknowledge his claims was driven by a choice to provide certain and stable knowledge about AIDS. And so the conventions by which the truth about AIDS was maintained in the scientific arena become visible. Despite Duesberg's probing of the HIV/AIDS master narrative, its facticity was maintained to uphold a public image of science as a producer of certainty by *avoiding* controversy.

## The black box reopens in South Africa

For a handful of scientists, the controversial nature of Duesberg's views on HIV/AIDS was no barrier. During the 1990's he gained several allies when a loosely connected group of so-called 'AIDS dissidents' emerged. Robert Root-Bernstein, a professor of physiology, published his first peer-reviewed article in 1990 in which he explained his objections against the mainstream view on HIV/AIDS. One year later, the group for *The Scientific Reappraisal of the HIV/AIDS Hypothesis*, comprising of twelve scientists (including Duesberg and Bialy), doctors and journalists, submitted a short letter to the editors of *Nature*, *Science*, *The Lancet* and *The New England Journal of Medicine*. In the letter they proposed a reassessment of the evidence for and against the HIV/AIDS hypothesis to be conducted by an independent group. All of the journals refused to publish it. In 1995, the AIDS dissidents gained a small victory when *Science* published a similar letter by the group.

However, that same year the dissidents received a heavy blow when a cure for AIDS seemed nearby. This happened when AZT, the first group of drugs developed in 1989 against AIDS, made way for a new group of anti-

retroviral drugs called protease inhibitors. While none of these drugs provided a cure in itself, scientists began to realize that when packed together they formed a powerful weapon against the virus. With these drugs a new treatment era was born that went hand in hand with previously unknown levels of optimism. Between 1996 and 1997, the number of AIDS-related deaths dropped with 42 percent (Highlyman 1997); between 1997 and 1998 this number further declined with 20 percent (Christiansen Bullers 2001). If statistics showed that AIDS was controlled by slowing down the rate of virus mutation with the help of cocktails, it was evident that HIV was the causal agent of AIDS.

Despite overwhelming support for Gallo's hypothesis, Duesberg continued to attack the HIV/AIDS hypothesis. In 1998, Duesberg and David Rasnick published a review in *Genetica* titled 'The AIDS Dilemma: Drug Diseases Blamed on a Passenger Virus'. Rasnick had spent his career studying proteases, earning his PhD on them in 1978 from Georgia Tech. Since then he has contributed to the development of protease inhibitors to combat cancer and arthritis. In their review, he and Duesberg used an epidemiological strategy to attack the HIV/AIDS hypothesis, presenting epidemiological comparisons to argue that instead of curing AIDS, anti-HIV drugs were, in fact, one of the causes of AIDS. By drawing comparisons with other drugs and by pointing at the harmful consequences of anti-viral cocktails, the cocktails became part of the cause of the immune system depletion associated with AIDS. This argument offered a lifestyle and poverty explanation of the disease symptoms of AIDS, suggesting that instead of HIV, various lifestyle factors such as drug abuse and malnutrition were the cause of the immune system depletion associated with AIDS.

Given the controversial content of the paper, its publication in the journal *Genetica* was a surprising development. A possible reason was that the journal is highly specialized, and therefore does not have a wide circulation. This allows more room to probe the reception of controversial papers, because they tend to remain within the boundaries of a community of specialized scientists. But things took an unexpected turn in 2000. This happened a few days before the 2000 AIDS conference in Durban in South Africa when President Thabo Mbeki baffled world leaders, including UN Secretary Kofi Annan, US president Bill Clinton and Britain's Prime Minis-

ter Tony Blair, with a letter addressed to each. In it he publicly explained his choice to include AIDS dissidents in an 'International Presidential Panel on HIV/AIDS in Africa' to establish the truth about AIDS. In the final passage of the letter, Mbeki passionately defended the AIDS dissident position by arguing that much like under apartheid certain ethnicities were oppressed, the AIDS dissidents were 'intimidated' and 'terrorized' in their attempts to dig out the truth about AIDS (Mbeki 2000). This public support for the AIDS dissidents catapulted a marginal and highly controversial scientific view into the arena of international politics.

It seemed an odd choice by Mbeki to defend the dissident theory at a time when the anti-HIV cocktails were widely celebrated for their success in suppressing HIV. But underneath the surface of the South African political landscape, the soil was ripe for Duesberg's and Rasnick's controversial critique on the HIV/AIDS hypothesis. Under the influence of the liberation movement in the 1990's in South Africa a divergent model to deal with AIDS developed. While the Western biomedical model focused on anti-AIDS drugs to control the epidemic, the South African ameliorative-oriented discourse focused on lifestyle factors such as poverty, individual responsibility and traditional medicine to confront AIDS (Butler 2003). This development is a product of the controversial image of Western science in South Africa, where scientific health and population policies validated and enforced racial segregation during the apartheid era. In view of this troubled history it is not surprising that in South Africa, the AIDS epidemic has been described as an instrument of an ongoing racism – some even believed that scientists spread HIV through a network of infected prostitutes (Butler 2005: 604).

By emphasizing individual responsibility of Africans to control the epidemic, the ameliorative-oriented discourse was a reaction against the Western myth of the native as unconstrained that has shaped the Western perception of AIDS. In her book *Globalizing AIDS* Cindy Patton has poignantly summarized the historical opposition between 'the civilized European' and 'the uncivilized native' that has continued to inform the AIDS discourse: 'The colonial subject (or homosexual or prostitute) is presumed to be infectious, while the colonizer (or 'mainstream' person) is presumed open to infection' (2002: 39). In addition to the assumed lack of

self-control of Africans – attempts to explain AIDS included polygamy, child rape, ‘dry sex’, and sex with monkeys<sup>4</sup> – racist preconceptions of Africa as ‘the dark continent’ have surrounded the evidence on the origins of AIDS in Africa (Chirimuuta & Chirimuuta 1987).

Mbeki was strong defender of the ameliorative model, focusing his presidency on the values of an African renaissance and trying to find African solutions to African problems. In a speech in 2001 at Fort Hare University in the Eastern Cape province, Mbeki revealed the extent of his distrust of Western science: ‘Thus it happens that others who consider themselves to be our leaders take to streets carrying their placards, to demand that because we are germ carriers, and human beings of a lower order that cannot subject its passions to reason, we must perforce to adopt strange opinions to save a depraved and diseased people from perishing from self-inflicted disease’ (cited in Forrest & Creek 2001). For someone with such a perspective on Western science, the AIDS dissidents scientifically legitimized a view on AIDS *without* the need for a blind reliance on Western medicine to control the epidemic. They proposed both a critical assessment of the premise that anti-HIV medication was the best option to deal with AIDS (i.e. the HIV/AIDS correlation), and an alternative path to deal with the epidemic by proposing that lifestyle factors such as malnutrition, drug abuse and poverty were the cause of AIDS. In doing so, they had unknowingly forged a program that fit Mbeki’s African renaissance program.

In 2000, Mbeki’s government launched the HIV/AIDS/STD strategic plan for South Africa. The plan’s core message was that AIDS is not a health problem that could be contained by a few medical or health-centered interventions, but that it was to be challenged by all sectors of society, including organized businesses, academic institutions, the media, organized labor, insurance companies, and health professionals. In an attempt to justify his position on AIDS, in early 2000 Mbeki set up the International Presidential Panel of Scientists on HIV/AIDS in Africa. Besides inviting scientists defending the mainstream view on HIV/AIDS, Mbeki phoned Duesberg, Bialy and other members of the AIDS dissident camp to join the panel (Bialy 2004: 188). The international panel met for two days in May in Pretoria and for two days in July in Johannesburg. Bialy and Dues-

berg accepted the invitation, as well as a substantial number of local and international scientists from the HIV/AIDS camp. Robert Gallo was also invited, but he was unable to attend.

In a country heavily struck by the AIDS epidemic – in 2000 South Africa confronted an estimated HIV-population of five million – Mbeki’s support for the AIDS dissidents provoked strong negative reactions. Consequently, the discussion held ten years earlier in the closed community of U.S. virologists and immunologists reopened as South African scientists attacked their president’s questioning of the HIV/AIDS hypothesis. Instead of engaging in a scientific debate, a boundary distinction was marked between science and Mbeki’s political arena by expressing bewilderment about the idea that a non-expert could raise questions about the use of drugs. The President of the Medical Research Council in South Africa, Professor William Malegapuru, was cited in the *Weekly Mail* and the *Guardian* as describing Mbeki as ‘medically and scientifically naïve’ and he warned that South Africa was becoming ‘fertile ground for pseudo science’ (Cited in Furlong & Ball 2005).

South African scientists gained international support in their fight against the dissident position when a few days before the opening of the 2000 AIDS conference in Durban, the international community of scientists intervened in an order to prevent the controversy from spilling across the South African borders. In an effort to clarify once and for all the mainstream view on HIV/AIDS, *Nature* published a letter in the July issue called *The Durban Declaration* in which 5000 scientists endorsed the view that ‘The evidence that AIDS is caused by HIV-1 or HIV-2 is clear-cut, exhaustive and unambiguous, meeting the highest standards of science’ (2000: 15-16). Before publication, a letter asking scientists to sign the petition circulated on behalf of the organizing committee of the AIDS conference. The petition was loaded with scientific credibility. It contained 250 committee members, listing a stunning number of eleven Nobel Prize laureates and directors of leading research institutes and presidents of academies and medical societies, including the US National Academy of Sciences, the Royal Society of London, the UK Academy of Medical Sciences, the Pasteur Institute, the European Molecular Biology Organiza-

tion, the AIDS Society of India, the National Institute for Virology in South Africa, and the Southern African HIV Clinicians Society.

In contrast to this list, the number of AIDS dissidents – and their credibility – came up as very pale indeed. After a brief moment of attention, it was clear that their efforts to question Gallo's hypothesis were still considered an act of dissidence. Mbeki's intervention did nothing to change this, because with The Durban Declaration, the international scientific community had once again tightly sealed the lid of the black box. But he had managed to briefly open it by provoking a defense of its contents that were deemed too controversial by mainstream science. However, what was considered controversial in the setting of a scientific arena, proved appropriate in the context of Mbeki's political ambitions. Duesberg's critique of the HIV/AIDS correlation and his position as a dissident scientist both confirmed and justified his suspicions of Western science and his belief in an African renaissance. His intervention was therefore not about reviving a scientific debate, but an attempt to justify a particular political ideology. As President of South Africa, Mbeki's duty was to win trust and support of his people by proposing and justifying what he considered an appropriate course of action that fitted the demands of the particular political arena of South Africa.

During the years after the controversy, Mbeki's government remained reluctant to provide anti-AIDS drugs to South Africans. AIDS advocates, particularly *The AIDS Treatment Action Campaign*, continued their campaigns for universal access to AIDS treatment. By 2003 South Africans could still not get access to anti-retroviral drugs via the public health care system. Pressured by passionate pleas of HIV-infected South Africans and international voices calling for political action, that same year the Cabinet promised to formulate a national treatment plan which included the use of anti-retroviral drugs. The Health ministry was still run by Manto Tshabalala-Msimang and it continued to promote nutritional approaches to dealing with AIDS. In September 2008, after Mbeki left office, Tshabalala-Msimang was removed as Health Minister. State-funded access to anti-retroviral drugs is now official in South Africa.

Celia Farber reveals 'the truth' about AIDS

AIDS journalist Celia Farber was about to reopen the black box when in March 2006 Harper's Magazine published her article titled 'Out of Control: AIDS and the Corruption of Medical Science'. It centered on a clinical trial for the anti-AIDS drug Neviparine, but the final part of the article defends Duesberg's view on HIV/AIDS and attempts to rehabilitate him as a credible AIDS researcher. The result was a firestorm of criticism, opening the black box as rebuttals to Duesberg's theories and other aspects of Farber's journalism were posted on the Internet. The most important reaction was a 37-page document written by eight prominent representatives of the AIDS community.

Since Duesberg's intervention in 1987, Farber had written on issues and controversies surrounding HIV/AIDS as a regular contributor to *Esquire*, *Spin*, *USA Today* and *GEAR*, and with about thirty articles that attack the mainstream position on AIDS, she has earned the reputation to 'penetrate the ostensible' (Berkowitz 2000). Her involvement with the AIDS dissidents began in 1986 when on her father's show, *The Barry Farber Show*, a guest was on who was convinced that a lipid extract from hen's egg yolks called AL 721 was a cure for AIDS. Intrigued by the man's story, she began a yearlong research project on the matter. At the time, she was also working as a research assistant at *Spin Magazine*, a music magazine founded in 1985 by publisher Bob Guccione Jr. She brought him the hen's yolk story and he decided to publish it as her first piece of a series of columns about AIDS. In 1987 she interviewed Duesberg after reading about his *Cancer Research* paper in *The New York Native*. The editor of *Spin* refused to read her piece, so she took the interview straight to Guccione, who called her that night to tell her 'this may be the most important interview I will ever publish' (Berkowitz 2002).

Despite her success as an AIDS journalist, most magazines that published her work belonged to the realm of the glossy magazines. *Spin Magazine* is a popular music magazine and *Esquire* is mainly a fashion magazine. In order for her passionate defense of the AIDS dissidents to gain credibility, a more intellectually refined magazine needed to give her a chance. The first step that led to a credibility boost was taken when in the spring of

2006 Lewis Lapham, the editor of *Harper's Magazine*, was replaced by Rodger Hodge. He played a crucial role in opening the black box when he decided to assign Farber an article in *Harper's*. Farber was now in a position to make her point in the second oldest continuously published magazine – the oldest being *Scientific American* – with a monthly circulation of 250,000 copies. A monthly general-interest magazine covering literature, politics, culture and arts from a progressive leftist angle, *Harper's* has received contributions by Winston Churchill, Henry James, George Saunders and John Updike.

As expected by Hodge, the first part of Farber's contribution investigates two clinical trials, one in the U.S. and the second in Uganda. Both tested the efficacy and safety of the anti-retroviral drug Neviparine in preventing mother-to-child transmission. The U.S. trial ended after several women experienced serious side-effects, even resulting in the death of one of them. The Uganda trial was criticized for mismanagement, but claims that the drug was safe and effective in controlling HIV were supported by U.S. agencies. In the next part of the article Farber goes one step further by raising 'fundamental questions at the root of AIDS research' (Farber 2006: 48). At this point Duesberg's views on HIV/AIDS are introduced. After emphasizing that his contribution was not appreciated in the scientific community, the reader is confronted with the following question: 'And what was it, exactly, that Peter Duesberg had done?' (2006: 49). Farber's answer is straightforward: 'He simply pointed out that no one had yet proven that HIV is capable of causing a single disease' (2006: *Ibid.*). The piece continues with a summary of the evidence supporting the claim that HIV is the cause of AIDS by referring to it as 'merely a sketch of the central mystery presented by the HIV theory of AIDS' (2006: *Ibid.*). In agreement with Duesberg's claims, it is concluded that 'AIDS syndrome is defined by twenty-five diseases, all of which exist independently of HIV' (2006: 50).

As soon as the piece was published, Hodge received letters and e-mails from readers venting their anger about Farber's suggestion to re-think HIV/AIDS. An article by Lia Miller in the *The New York Times* reported that rebuttals from the AIDS community to Duesberg's theories and to other aspects of Farber's article were posted on websites like *The Nation*

and poz.com. Cornell Professor of microbiology and immunology John P. Moore was shocked when he read the article. In reference to a 2005 campaign called 'Teach the Controversy', designed by intelligent design advocates to undermine the teaching of the theory of evolution, Moore argued that by publishing Farber's piece Hodge wanted to 'teach the controversy' of Duesberg's ideas. In other words, for Moore the dissident view is not scientific, but a matter of religion. When Hodge was asked if he believed that HIV was the cause of AIDS, he replied: 'I don't feel like I am qualified to judge it. Am I a partisan? My general position is that I am very skeptical about absolutist arguments, so I want to hear the entire argument. More argument is better' (Miller, 2006). Hodge's strategy worked, because by defending and attempting to rehabilitate a scientist against whom a battle has been waged by mainstream science since 1987, Farber had gone much further than reporting dodgy proceedings at drug trials.

The reputation of *Harper's* ended up as a target for the AIDS community when in an attempt to close the black box a 37-page document titled 'Errors in Celia Farber's March 2006 Article in Harper's Magazine' was posted on the website of *Treatment Action Campaign*. Prominent AIDS scientists, including Gallo, journalists, and campaign officials, wrote it.<sup>5</sup> The document was introduced with a short, but clear message: Duesberg is not an AIDS researcher and has no practical experience studying HIV; Farber uses a 'plethora of false, misleading and unfair statements' and her work is 'dishonest' (Gallo etc. 2006). To prove this, it includes thirty-five pages of tables divided in error type, topic and description with a systematic refutation of Farber's arguments. We are also reminded of the dissident status of Duesberg and his supporters in the AIDS community by making clear that 'intellectual dishonesty is the norm for Farber and other AIDS denialists including David Rasnick, Peter Duesberg, Kary Mullis<sup>6</sup> and Harvey Bialy – all people she mentions favourably in her article' (Gallo etc. 2006). The term 'denialist' instead of dissident is a cunning reference to the controversial Holocaust denialists. As such, it was an attempt to push the dissident claims past scientific dissidence – a position that was still in the scientific community, albeit in the fringes – into the domain of obscure conspiracy politics. In a joint effort to debunk Farber's defense of Duesberg's views on HIV/AIDS, the black box closed once again.



## Arenas of truth making

In the history laid out in the previous pages, Latour's actor-network model provided a one-dimensional understanding of science's authority in society. This one-dimensionality resides in its focus on network strength in uncovering where power was located. A network is either weak or strong. There is no consideration of to whom it appears weak or strong, or what weakness means in qualitatively different settings. Several actors intervened by questioning the content of the black box, and in reaction to each intervention there was a clustering of actors to close the black box. This was evident during the initial black boxing of Gallo's hypothesis during the 1980's. As a growing number of scientists recognized the HIV/AIDS correlation, it turned from hypothesis to scientific fact. Ever since, majority support for Gallo's theory has remained stable. Each time an actor forced a discussion about the content of the black box, its subsequent closing was seen as a failure to gain more support for the dissident view. But mere actor-network dynamics misses how three intervening actors – Duesberg, Mbeki, and Farber – were embedded in varying social arenas, namely science, South African politics, and investigative journalism.

Farber turned out to be a dangerous AIDS journalist when given the chance to publish in a reputable magazine. This is not because she was a good scientist or a convincing politician; it is because as a journalist she articulated her claims in an arena where the rules of behavior dictate that truth-making is about exposing controversy. The contrast between Maddox's reaction to Duesberg's and Hodge's to Farber's intervention exposes this divergence of expectations. Maddox's refusal to publish Duesberg's claim was about maintaining a public image of science as producing certain and stable knowledge. Hodge's skepticism towards 'absolutist arguments' reveals a different view on what was true and what was not. From an investigative journalist's perspective, truth-making is not about maintaining certainty by *avoiding* controversy. Instead, it is about *reporting* controversy in an attempt to expose disagreement and uncertainty among authorities. The widespread acceptance of Gallo's hypothesis as a scientific fact – both in- and outside the scientific community – provided

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Hodge with the means to do just this, allowing Farber to live up to her reputation 'to penetrate the ostensible'.

In the South African political arena the 'truth' about AIDS was subject to yet another set of norms. In the context of Mbeki's belief in an African renaissance program, what was true about the HIV/AIDS correlation was informed by his mistrust of mainstream science as an instrument of ongoing Western dominance and racial prejudice. The dissident status of Duesberg's criticism on the established truth about AIDS is a major reason for most scientists and politicians to avoid public association with it. But in the eyes of a president who strongly advocated resistance against what he perceived as a continuing apartheid, dissidence is a strong indicator of repressed truth. Viewed from this perspective, his sense of duty to legitimate and implement a national policy to control AIDS that fit the demands of the South African context was a product of his distinct notion of African politics.

For scientists, politicians and the lay public at large, the authority of the international scientific community as a reliable producer of certain facts holds firmly in the case of the HIV/AIDS correlation. A public debate on the causes of AIDS is, at present, considered unethical, and for many even unreasonable. To question the causal relationship between HIV and AIDS is to question both the grim reality of the disease and the authority of 26 years of scientific research. Governments have secured national policies on its basis, subsidizing anti-AIDS campaigns and making anti-HIV medication available through the state health system. As such, the worldwide acknowledgement of the HIV/AIDS correlation as a scientific fact is an example *par excellence* of the authority of scientists and their products in modern society. But to universalize this authority across the diversity of social arenas that constitute our society is a failure to understand *how* it is maintained and *how* it is received. Latour's actor-network model, however, misses the heterogeneity of cultural norms by which actors evaluate facticity. If this perspective clarifies how truth is made and maintained, it does so at the price of reductionism.

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<sup>1</sup> Latour has borrowed the term 'black box' from cyberneticians, who use the term to describe a piece of machinery or a set of commands considered too complex to summarize on a diagram. In its place a black box is drawn with lines marking its in- and output.

<sup>2</sup> Ten years earlier virologists had coined the term "retrovirus" to define any group of viruses that contain two single-strand linear RNA molecules and reverse transcriptase (RNA to DNA).

<sup>3</sup> The initial identification of the HIV virus marks another major public controversy in the history of AIDS research. Like the controversy that occurred after Thabo's Mbeki's

involvement in the HIV/AIDS debate, this one occurred in a political arena. However, the central theme of the debate was not the validity of the HIV/AIDS correlation, but the question *who* was to be credited for identifying HIV. One year prior to the public announcement that Gallo had identified HIV, the French virologist Luc Montagnier had identified the same virus (albeit under a different name) at the Pasteur Institute. Before the announcement, Gallo's and Montagnier's research groups had even shared samples. The fact that they had collaborated not only complicated the issue of attributing credit to the 'right' party, but it also became a potential threat to Gallo's credibility. The sharing of samples opened the door to the possibility that Montagnier's samples had contaminated Gallo's samples. This suggested that Gallo had actually identified Montagnier's virus. The controversy became public when the Pasteur Institute went to court after the US government had granted Gallo the patent on the discovery of HIV. The result was a three-year diplomatic negotiation between France and the US. In 1987, the issue was finally resolved after the US president and the French prime minister publicly announced that Gallo and Montagnier agreed to share credit for the discovery of HIV. For a more extensive account of this episode consult Epstein's *Impure Science: AIDS, Activism and the Politics of Knowledge* (p. 69-75).

<sup>4</sup> Various studies have pointed at the racial bias in the Western perception of AIDS. See Packard, R. & Epstein, P. (1991) 'Perceptions and misperceptions of AIDS in Africa'. In: E. Kalipeni, S. Craddock, J. Oppong, J. Gosh (Eds.), *AIDS in Africa* (47-57) (Malden: Blackwell 1991); Goldstein, D. *Once Upon a Virus: AIDS Legends and Vernacular Risk Perception* (Logan, UT: Utah State University Press 2004); Epstein, H. *The Invisible Cure: Africa, the West, and the Fight against AIDS* (New York: Farrar, Strauss & Giroux 2007).

<sup>5</sup> The list includes Nathan Geffen (Policy, Communications and Research Coordinator, Treatment Action Campaign, South Africa), Greg Gonzales (Gay Men's Health Crisis), Richard Jeffreys (Basis Science, Prevention & Vaccines Project, Treatment Action Group), Daniel R. Kuritzkes (Director AIDS Research, Brigham and Women's Hospital and Associate Professor of Medicine, Harvard Medical School), Bruce Birken (Director Communications, Marijuana Policy Project), John P. Moore and Jefferey T. Safrit (Senior Programs Officer, Elisabeth Glaser Pediatric AIDS Foundation and Visiting Assistant Professor at Department of Pediatrics David Geffen School of Medicine, UCLA).

<sup>6</sup> One of the more controversial AIDS dissidents is biochemist Kary Mullis. In 1993 he was awarded the Nobel Prize in Chemistry for developing the polymerase chain reaction, a technique widely used by biochemists that facilitates the amplification of specific DNA sequences. He went surfing on the day he received his Nobel Prize and has admitted to a serious interest in astrology. In his 1998 essay collection *Dancing Naked in the Mind Field*, Mullis describes several curious episodes. One of his strangest escapades was an encounter with a glowing raccoon. On his way to the toilet one night, he heard the illuminated creature say 'good evening doctor'.