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Subject: HIV/AIDS: Science or Religion?

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“When religion was strong and science weak, men mistook magic for medicine, now when science is strong and religion weak, men mistake medicine for magic”

Thomas Szasz

There appears to be little in common between the beliefs of medieval Christianity and modern science. We learned in grade school how the open exchange of ideas was suppressed back in the dark ages, and how learning was discouraged in favor of dogmas handed down hierarchically from the religious elite to the peasants through several rigid, filtering layers.

We also were taught that scientific thought is now advanced by egalitarian, intellectual, public debates between people who rise to the top of the scientific community through their intelligence, careful experimentation, open exchange of ideas and information, use of the scientific method and hard work. Everyone, we copied off the blackboard, is now exposed to rapidly evolving scientific theories rather than rote learning of the catechism of an immutable religious dogma.

How we Learn About Scientific Beliefs

Is there a problem in how we learn about the superiority of modern thought? Are we actually guilty of rote learning ourselves, accepting what we were told because it makes us feel superior to those ignorant peoples of centuries ago? Do we believe, without questioning, because the conclusions of science both support our hopes for the future as well as sending shivers up our spine as our darkest fears of the unknowable are realized? Can we claim that we hold a scientific belief when we just believe what we were told?

“You know, but you do not think.”

Sherlock Holmes (Arthur Conan Doyle) [paraphrased]

How do the majority of people, those outside the scientific elite of our society, learn about new scientific theories and, perhaps more importantly, decide whether to accept or reject them? Their beliefs about HIV and AIDS, for example, cannot be based on a critical examination of the evidence because so few have ever read even a single scientific paper. Is there really much difference then, between a medieval peasant being told that sinners will spend eternity burning in Hell, and an ordinary citizen of this country being told that if he or she has sex without a condom they risk contracting a fatal virus?

Ossification of Beliefs

Early Christianity was an informal religion, with few written religious texts of its own. Jesus, for example, often taught through parables, folksy stories with a moral lesson, such as the *Sower and the Seed* or *The Prodigal Son*, rather than through recitations of dusty texts. Yet, within a few hundred years the Christian church had accreted layer of dogmas, many with little grounding in the founding principles of the church.

Celibacy, for example, was not part of early church doctrine, and some religious scholars believe that it was originally designed to stop the practice of some priests, of handing down their position and church property to their children. This leakage from the bottom of the hierarchy threatened the whole hierarchical structure. Yet, from this beginning, celibacy became a strongly defended Catholic dogma.

One of the dogmas of modern living is that HIV causes AIDS. It also did not start this way. In the first papers by Robert Gallo (not a man known for bashfulness) he only stated that HTLV-III (what he called HIV then) “may be the primary cause of AIDS” [Gallo, 1984]. Stephen Epstein, in his 1996 book “Impure science” [Epstein, 1996] shows how this tentative hypothesis became accepted fact through the emboldening of scientists who referenced it. Only 3% of papers published in 1984 used Gallo’s papers to support an explicit, unqualified assertion that HIV caused AIDS. By 1985, 25% of scientific papers. And, by 1986, 62%. Epstein found this trend even when the Gallo papers were the only ones referenced! Hypothesis became fact by repetition.

Kary Mullis, who won the Nobel Prize for his invention of the Polymerase Chain Reaction ([PCR](#)) once echoed Gallo by starting a paper with the sentence “HIV is the probable cause of AIDS”, and then went searching for a reference to support it. He read the original Gallo and Montagnier papers, found them lacking, so started asking his colleagues in his lab, and at conferences. They either said he didn’t need a reference for the statement, got angry or, like Luc Montagnier, just looked uncomfortable and walked away [Duesberg, 1996].

One would think that a debate over such a fundamental point of medical science would be a big news item, but it only rarely surfaces in the news, and then often as a ‘Man bites Dog’ story. One of these times was early in the days of Duesberg’s dissidence. Another, more recently, was when South Africa’s President Mbeki started asking questions about the cause of AIDS, and even established a Presidential Commission to investigate. Coverage of dissenters is usually written from the perspective that any sane person would disagree, just as a journalist might provide coverage of a flat earth society conference. Journalists focus on individuals, giving the impression that there are only a handful of renegades.

Those who believe and defend HIV/AIDS dogmas play on a weakness of journalists – there is no news if nothing new is happening. If top scientists claim that it is beneath their dignity to debate to such a preposterous notion and refuse to comment further there simply is no story. Journalists who get nosy can be told that it is irresponsible to dredge up hypotheses that were disproven years ago (which already makes the journal-

ist feel inadequate, because they won't know of these debates, because they never happened) and that, besides, such 'reckless' reporting will only make people give up safe sex, which will cause immeasurable loss of life, all because of the reporter's selfish desire for a scoop.

Another popular assumption is that HIV rapidly results in AIDS, and AIDS rapidly results in death. It is not clear exactly when and why this belief arose, because AIDS is still a fairly young disease. Although there is a high associated death rate, obviously not everyone diagnosed with AIDS dies of the disease, some may die of traffic accidents, suicide, adverse drug reactions and perhaps some will die of old age.

CDC statistics up to 1997 documented a 92% death rate [CDC, 1997] among people diagnosed with AIDS before 1981. But, a footnote to this chart indicates that "Reported deaths are not necessarily caused by HIV-related diseases". CDC definitions of pediatric AIDS exclude recovery by definition, once a child is diagnosed with 'AIDS' they must keep that label, even if they fully recover from the AIDS-defining condition [MMWR, 1994].

Other research notes that the average time from HIV infection to AIDS is about 10 years, both in North Americans with access to drugs [Munoz, 1997] and in malnourished Africans with no access to these 'life saving' compounds [Morgan, 2002].

A few researchers have studied so-called Long-Term Non-Progressors (LTNP), people who are HIV-positive but who remain healthy for many years without antiretroviral drugs.

This information does not support popular assumptions about HIV and AIDS, so it is simply brushed aside.

HIV/AIDS 'facts', as with so many medical 'facts', often get created through consensus meetings. With AIDS, this means that a group of medical doctors, public health officials and researchers get together and decide on guidelines for testing or treatment for men, for women, for adolescents or for children. By inviting only those who accept the 'drugs into bodies' philosophy of AIDS, it can be ensured that a pro-drug spin will be published, and that fundamental assumptions will not be questioned.

This unscientific declaration then becomes the 'standard of care', and doctors below the authors in the hierarchy are virtually compelled to work within this newly created box or risk being accused of malpractice. Yet, the impact of financial conflicts among the writers of the consensus position is rarely considered, nor the impact of the selection process (if it is even made public).

"There would never be any public agreement among doctors if they did not agree to agree on the main point of the doctor being always in the right."

George Bernard Shaw

Language

Language was used by medieval Christians to prevent communication of anything except the most simple religious concepts to its adherents. It was not until the 1960's,

for example, that the Catholic church stopped using Latin in its masses. Language is a protective barrier around a hierarchical organization. The early church was concerned that if people listened to religious text in their native language, they might form their own opinions about theological issues. How much better to provide a ritual with familiar sounds, but no real meaning.

Three different branches of Christianity used three different languages, not one of which was understood by the average churchgoer. The Roman Catholics used Latin, the Eastern Orthodox used Greek, and the Egyptian church used Coptic. Worse than this, in the middle ages, many priests did not even speak Latin, and consequently mumbled in a way that would have been incomprehensible even to the few who did understand the language.

Well into the 20th Century much science was still published in Latin. Scientists still use Latin or Greek to develop their own terminology, which is legitimate if they are truly defining a novel concept. However, you walk into a doctor's office with muscle pain, and leave with Myalgia - have you been diagnosed or bamboozled? If you walk in with a runny nose and leave with a prescription for Rhinorrhea medication, are you better off?

While the bulk of language in medical science may be unintelligible to most people, scientists need to communicate through a carefully designed public subset of their language. What is 'dumbed down' to the level of the man in the street can be very manipulative.

The words 'potent' or 'powerful', for example, are often used to describe toxic medicines, particularly for Cancer and AIDS. These imply that the drugs have a powerful effect on the disease. Yet, this is obviously not true, because drugs for neither Cancer nor AIDS ever completely eradicate the disease. Cancer patients are told they are in remission, not cured, and signs of HIV can usually be found in people with AIDS, even when they have been taking drugs for a long time. [Saag, 1999]

These drugs do, on the other hand, have a very potent and powerful on the patient. They can cause an amazing array of side effects including serious anemia requiring blood transfusions, muscle wasting, bone rotting (osteonecrosis in polite company), heart attacks as well as pancreas and liver failure [aras.ab.ca, 2003]

There is a special mini-language used to describe patients. They can be classified as *Naïve*, *Experienced* or *Compliant*. A *Naïve* patient is not one who is stupid, but one who has never taken drugs before. An *Experienced* patient is the opposite, someone who has taken lots of AIDS drugs. [What would you rather be - Naïve or Experienced?](#)

Good patients are not only *Experienced*, but also *Compliant*. They take their drugs when they are supposed to, and never miss a dose. Presumably they don't whine and complain about side effects either, but just carry their cross heroically to the grave.

Scientists often fight over names. Brontosaurus is no longer the official name of a dinosaur because, although that name had been used since 1879, it was many years

later discovered that the name Apatosaurus had been given to the same fossil in 1877. The naming purists won out. Brontosaurus is history.

In the case of HIV, politics played a much bigger role than even historical precedence.

Gallo originally claimed that HTLV-I (Human T-Cell Leukemia Virus I) was the cause of AIDS. This was a bit hard to swallow, because he had previously been claiming that it caused uncontrolled replication of lymphocytes (cancer), and now was claiming that it caused the death of this type of cell. He didn't even bother trying with HTLV-II, which has only ever been detected in one person. So, he changed the 'L' in HTLV from Leukemia to Lymphotropic (which merely means 'attracted' to lymphocytes) and claimed that he had discovered a new virus, the probable cause of AIDS, and it was in the same family as his previous two viruses. This, he claimed, should be called HTLV-III.

Montagnier, of the Institut Pasteur, called his discovery LAV - Lymphadenopathy (lymph node disease) Associated Virus, due to the characteristic swollen lymph glands in many people with AIDS. He also claimed that this was the probable cause of AIDS.

The name HTLV was doomed when it became clear that Gallo had covertly used Montagnier's cell cultures to 'discover' his virus. Gallo had so much political power, however, that calling it LAV, a direct slap in his face, would have been impossible.

An agreement between US President Ronald Reagan and French Prime Minister Jacques Chirac became the official history of a simultaneous discovery, although many knew that this was a fabrication. Based on this, HIV, Human Immunodeficiency Virus, became the consensus name. This had the added advantage that it solidified the association between the virus and the Acquired Immuno-Deficiency Syndrome.

"Who controls the past, controls the future: who controls the present controls the past."

George Orwell

Another example of the importance of naming occurred around 1994, when it was widely agreed that Kaposi's Sarcoma was not caused by HIV, but by another virus called Human Herpes Virus 8. [Chang, 1994] This is very interesting, because this skin cancer was one of only two diseases that started the whole AIDS thing in the first place, and now it turns out that it was not caused by HIV, even though KS is still an AIDS-defining condition, and HIV supposedly still causes AIDS. The name HHV8 simply was not adequate, so the new name KSHV - Kaposi's Sarcoma Herpes Virus was invented. Now, everybody would know that the causal link between the virus and the disease was a 'fact' just by speaking its name. Presumably, not many people are going to read the literature and wonder why about one-half of some age groups of schoolchildren in Egypt, where the disease is quite rare, have antibodies to KSHV? [Andreoni, 1999]

Censorship

Dogmas requires censorship, because otherwise people will be exposed to a variety of opinions, and people have a nasty habit of not always picking the 'right' one. They must be protected from this.

I once took a moderated internet news group called sci.med.aids seriously, and tried to start a civilized discussion regarding whether HIV caused AIDS. The news group was established to allow a wide-ranging, open discussion of all issues related to the science of HIV and AIDS. Its moderators, well-meaning folks that they are, have standard codes for various types of rejections. There are codes to reject spam, advertising, abusive language, badly formatted posts and, most interesting to me, one that effectively bans any discussion of the hypothesis that HIV causes AIDS.

In 1996, I requested opinions on Dr. Peter Duesberg's just published book "Inventing the AIDS Virus" [Duesberg, 1996]. The posting was rejected. I then attempted to post a question asking for evidence that HIV causes AIDS. It was also rejected using their special code for the "HIV<>AIDS" debate.

To eliminate the possibility that I was just not good enough or scientific enough to post on this group, I wrote the most obsequious email about an unnamed sick friend, superficially in praise of modern AIDS researchers. I ensured that the posting had absolutely zero scientific content. It was posted on the group in a flash. I quickly got a response from a researcher looking for startup funds for a new therapy, an offer to send me a free audio tape that could save my friend's life, a vaccine researcher probably looking for trial participants and an oncologist offering to treat my friend.

After a couple of days I told the newsgroup that it was all a hoax. Even that posting was rejected ... because it "concerned the HIV<>AIDS debate".

More recently, and more seriously, myself and a Ukrainian Statistician, Vladimir Koliadin, have attempted to get raw data from the CDC on all AIDS cases, excluding, of course, personal identifying information. We wanted to see if we could find trends in the data that would contradict the commonly quoted belief that AIDS drugs have improved the health and increased the life span of HIV-infected people. Even though we were only asking for data that we knew they had (as much of it had been published for years up to 1997), after a number of emails back and forth, we were finally told that "we are quite short staffed and have to prioritize requests". [CDC, 2001]

The Concorde clinical trial found little or no benefit to the early use of AZT, and also little value in the use of CD4 cell counts to measure 'progression' to AIDS. The problem with this trial was that it was intended to compare the early prescription of AZT with later prescription (i.e. after the diagnosis of AZT). We asked for data that would allow us to analyze trends in health prior to the first use of AZT, as opposed to their analysis that included the use of AZT in the 'placebo' arm. They recently wrote to us and told us that they did not think that we could add any value to the analyses that they had recently performed [Darbyshire, 2003], even though we have reviewed their papers, and nothing like our proposed analysis appears there.

Treating raw data and other products of a research project as the private property of investigators is a common form of censorship in medicine. In *Science Fictions*, John Crewdson describes how Gallo would only share his reagents with researchers who were unlikely to be critical, and often forced other researchers to agree to significant restrictions on what they could do with them [Crewdson, 2002]. In the 'Bluestone' affair, Erdem Cantekin, a member of a research team attempted to release data that showed that antibiotics were not effective for treating ear infections, but instead found his career derailed after the leader of the same research team counter-attacked. [Crossen, 2001; Bell, 1992] A recent survey of life scientists found that data withholding is a significant impediment to the free flow of information, and that it is more likely to occur when commercial interests are present. [Campbell, 2002]

Hierarchies

Hierarchies are common methods of arranging complex organizations, whether religions, governments, companies or medical research.

Hierarchies control decision making, define and refine dogmas, and put limits, sometimes extremely tight, on legitimate dissent. Even today, in the Catholic church (and others), only the leadership at the top can make policy changes, others have to work within the system.

Members of the hierarchy benefit from the status and wealth that it provides them, but they are also aware that they can easily be expelled if they become a threat. Any one person is expendable. Even popes have been deposed. This may be why people within hierarchies are so conservative. They know that they have much power, but also know that if they use it in unexpected ways, they are liable to find themselves with a knife in the back - literally or figuratively.

Entering a hierarchy requires special training which, in the case of medicine, involves medical school or graduate school. Schmidt's 2000 book *Disciplined Minds* contends that graduate school is designed more to squeeze highly intelligent people into their place in the scientific hierarchy, than it is to provide a place and time for open exploration of science. He believes that the 'comprehensive examinations' that are part of most curriculums are designed not to test knowledge, but rather to determine whether the student is prepared to submit to the system by completing a highly demanding project that may be completely meaningless to them.

The hierarchy in HIV/AIDS is revealed by examining how the information on HIV/AIDS flowed down to us from Robert Gallo, a researcher at the National Institutes of Health. After registering his claim with the US patent office (which already had Montagnier's claim, but was having 'difficulty' processing it) reported his discovery to his boss, Margaret Heckler, who then announced that American scientists had found the probable cause of AIDS at a press conference. Then they reported their results in an unprecedented four papers in the prestigious journal *Science*. Then the floodgates opened as the non-scientific media reported on the press conference and provided diluted summaries of the scientific publications. Although we have been virtually drowned in information on HIV and AIDS since then, the flow of information has been

very clearly downhill, with us, the general public, the the bottom, receiving much, but without permission to transmit much.

Perfect Evil

The concept of a God who (dis)embodies Perfect Goodness is found in many religions. But, equally important to some religions, is the notion of Perfect Evil – Satan, Lucifer, Beelzebub, the Devil.

The contrast between Capital ‘G’ Good and Capital ‘E’ Evil strengthens a hierarchical organization, because everything within the organization is classified Good and everything opposed to it is Evil. The more serious the external threat, the less attention is paid to internal deficiencies.

We know that we live in a world of shades of grays, not black evils and white goodnesses. But, moral decisions are so much easier to make if one simply has to choose between perfect Good and perfect Evil.

Medieval Christianity made people’s decisions a lot easier by creating a fallen angel – Satan – to take the rap for everything bad that happened or that threatened the power of the hierarchy. People who did evil things, worshipped other Gods, worshipped the same God in a different sect, or who were trying to reform the church from inside, could easily be accused of being ‘possessed’ by the Devil.

Perfect Evil means that you never have to stop and say “Sorry”. Whether burning Joan of Arc at the stake or killing Infidels in battle you didn’t have to worry about the commandment – “Though shalt not kill”. That does not apply to the eradication of Evil.

Striking a blow against the Devil is more important than saving the life of the person possessed. If they cannot be reclaimed for the forces of Goodness by persuasion, they must have the devil beaten out of them. If this kills them, it also kills Evil.

HIV is the modern day Perfect Evil. It standas with a small, select group of fatal diseases, such as cancer and Ebola. People who are told that they are possessed by HIV are immediately shaken to the core and often, in a sense, die right on the spot. If they beg for hope, they are usually told that they can only save themselves by religiously taking doses of antiretroviral drugs. When the illnesses come, whatever their cause, they are now programmed to blame them on HIV.

“It is easy - terribly easy - to shake a man’s faith in himself. To take advantage of that to break a man’s spirit is devil’s work.”

George Bernard Shaw

HIV is the trump card of disease. If you have HIV nothing else matters. If you are an IV drug abuser and you have Tuberculosis AND you test HIV-positive, then HIV caused your Tuberculosis, which is now classified as AIDS. But, if you are an IV drug abuser and you have Tuberculosis and you DON’T test HIV-positive, then taking drugs caused your Tuberculosis. Of course, when you think about it, if drug users get TB without HIV, then at least some of the HIV-positive drug users didn’t get sick from HIV. [Quick, next slide please.](#)

HIV makes risk analysis trivial. If you are an HIV-positive mother, you will be warned that breastfeeding doubles your risk of infecting your baby, and that therefore you **MUST** formula feed your baby. You won't be told that doubling your risk actually means that 86% of babies will **NOT** be infected by breastfeeding [Dunn, 1992]. And, research by Coutoudis [Coutoudis, 1999] showed that exclusive breastfeeding might be associated with no extra risk.

How is the very significant health risk of formula feeding compared with the risk of HIV infection? Very simply, it isn't. Since HIV is fatal, every baby who is HIV infected will die ([I was an HIV-negative baby, does this mean that I'm going to live forever?](#)). Every formula fed baby, on the other hand, might die or might not. Pedantic types, like me, point out that 100% of babies have to be formula fed in order to benefit (if it is a benefit) only the 14% [Dunn, 1992] of them who will be infected (if that is the right term). This means that the benefits of preventing HIV infection must be 7 times greater than the risks of the formula feeding that is being prescribed.

Perfect Goodness

Perfect Goodness is the domain of God, of course. But, some of the Goodness trickles down the hierarchy. The Pope might not be perfect, but he (and it is always a he) *is* infallible. One presumes that Cardinals come close to this standard, because any one of them could be the next Pope. Bishops and Priests have been known to sin, sometimes very publicly, but at that level, one expects some imperfections, such as fondling the altar boys, drinking, fondling the altar boys, keeping a mistress, fondling the altar boys, gambling, etc. Those outside the hierarchy can drink their droplets of Goodness by obeying the dictates of the church, learning its dogmas and, of course, giving generously of their worldly goods.

With AIDS it is clear that the medical profession represents the Forces of Goodness, organized into a massive hierarchy. At the top are a handful of researchers and the heads of an alphabet soup of US and international health organizations, such as the CDC, NIH, FDA, NIAID, WHO, Unicef and UNAIDS. Then come the thousands of AIDS researchers, doctors and health bureaucrats who so envy those at the top. Then the nurses, social workers, the NGOs, the media and the politicians. We, the people, are clearly at the bottom.

The forces of Perfect Goodness are the only ones that can, most assume, bring salvation. The sacrament of communion for this religion is not unleavened bread and wine, but a rainbow of pills with a glass of water.

War – Metaphor & Reality

The contrast between Simple and Perfect Goodness and Simple and Perfect Evil makes war a simple analogy. Through recorded history, right into the present, war has often been more than an analogy, with religions being either the cause of wars, or the excuse for wars.

Christianity was characterized early on by a peaceful, 'Turn the other cheek', approach to life. But, gradually, it became, like so many religions, used to justify war. When the

Church and State were working together it was easy to define their mutual enemies as Satanic, and turn war into a holy activity.

The War analogy has long been used by mainstream medicine. The “War on Cancer” is a good example (of the analogy, not of a successful war).

Over 100 medical papers since 1975 contain the phrase ‘magic bullet’ in their title. Terms like ‘weapon’, ‘fight’ and ‘target’ are common. The tools used, particularly for drawn-out medical battles, are similar to some of the world’s most feared weapons – radiation and toxic chemicals.

With wars come victims. And in a drawn-out fight between the doctor and HIV, the patient can often become collateral damage. For a recent disease, AIDS has one of the best developed history of medical toxicity, even though the disease’s first drug, AZT, was not approved until 1987 [aras.ab.ca, 2003].

“Cured yesterday of my disease, I died last night of my physician.”

Matthew Prior (17th c)

Admiration of Enemies

Ironically, the use of the war metaphor leads to an elevation of enemies. The 11th Century French *Song of Roland* praises the heroism of slain warriors on both sides of this battle between Christians and Muslims. Bravery in battle is clearly aligned with Godliness.

HIV is regarded with awe by the many AIDS scientists who have joined the medical crusade against it. No matter how hard they battle it, the virus cannot be eradicated from the body. [Harrington, 2000] No matter which medications they prescribe, the virus mutates around them. Antibodies are produced, but they are ineffective. Vaccines it evades thrice before breakfast. No matter how intense the war, this Devil is never vanquished.

Strangely, the army of Goodness - Modern Medicine - rarely suffers casualties. No matter how often medical professionals are exposed to HIV, they rarely get AIDS. According to the CDC 1997 surveillance report, only 54 US health care workers are believed to have acquired HIV infection through on the job exposure, and only 25 of them have contracted AIDS. That was out of a cumulative total of 633,000 US AIDS cases, so occupational cases make up 0.004%.

Not a single one of these AIDS cases was in a paramedic or surgeon, even though these two groups are most likely to be exposed to HIV-positive blood. [CDC, 1998]

I quote 1997 statistics because after that, the CDC perhaps began to understand that the lack of casualties among the warrior class was a bit embarrassing, and stopped publishing statistics on HIV and AIDS among health care workers.

The victims of this war, like most wars in fact, are the collateral damage – the civilians, the people diagnosed with HIV infection or AIDS who provide the battleground. There are attempts to award them heroic status through their death, but this is inextric-

cably associated with their acceptance of the HIV=AIDS dogma. Those who do not accept are 'in denial'. The implication being that they deserve their death because they refuse 'a better life through chemicals'.

Church/State Power Sharing

The very early Christian church deliberately kept itself separate from the state. Christians were taught to "Give to Caesar those things that are Caesar's, and to God the things that are God's".

But, by the middle ages the church hierarchy and European royalty had become tightly entwined – not completely integrated, as the Lords of worldly and otherworldly power often fought over the hearts, minds, bodies and wealth of the populace. Sometimes kings would have the upper hand, appointing compliant bishops to ensure that the church and its influence was subservient to his needs. At other times, particularly in the 1100's and 1200's a strong Pope would keep kings in check by threatening to deny them access to religious ceremonies and services, and through alliances with friendly kingdoms.

A good illustration of this was the pressure brought to bear on the famously bad King John of England by Pope Innocent III. He invalidated all religious services in England, excommunicated the King and, perhaps more importantly, lined up the more compliant King of France to invade England. Due to a combination of this, and internal pressure, John caved in and signed Magna Carta in 1215. The Pope's concern was that John was setting himself above religious authority, not that he was crushing the British nobility under this thumb. And nobody cared about the Serfs.

When things were going well, however, Church and State worked closely together. The Church could give moral authority and, in the early days, had a bureaucratic infrastructure that helped primitive governments to function. Bishops often acted as the King's regional administrators.

Modern medicine, and AIDS in particular, is also based on cooperation and tension between Governments and Science. Governments create and enforce policy, Scientists create the facts that form the mental environment within which Governments operates. Governments tax the population to pay for research to manufacture more facts.

When scientists threaten dire consequences, particularly those due to an infectious disease threat, governments listen. They know that if they ignore the threat, and the disease breaks out they will be blamed. If action is taken and nothing happens, scientists will usually look like they prevented a crisis. If, on the other hand, the crisis occurs anyway, they usually can claim that it would have been much worse without action.

An example of government's genuflecting to the medical establishment occurred during the 1970's Swine Flu scare. President Gerald Ford did what seemed to be a very smart thing when faced with a clamor for universal vaccination of Americans - he called all the top scientists in the US together to meet with him, including arch-rivals Sabin and Salk. He asked if any of them had concerns about universal vaccination. Silence. He invited all the scientists to come into his private office for a private chat

after the general meeting. Nobody came. Consequently, vaccination of every American was attempted. Luckily, a variety of problems made this impossible, particularly among the very young and elderly, because the final death toll was: Swine Flu 1, Swine Flu Vaccine: at least 25 from Guillaine Barre syndrome alone (with about 500 cases of this illness in total and a billion dollars in lawsuits against the US government). [Laitin, 1997] Given that adverse reactions are usually significantly under-reported, the actual toll of illness and death might have been considerably higher.

More recently, a whisper of heresy from South African President Thabo Mbeki resulted in the 'Durban Declaration', a document with the tone of a religious creed [Durban, 2000]. In a pre-emptive strike a week before an international AIDS conference in Mbeki's country, more than 5,000 people signed this document condemning Mbeki, who had merely raised the question of whether HIV caused AIDS, not attempted to answer it himself. Part of the shock was that a politician, a man outside the scientific hierarchy, would concern himself with evaluating a scientific question.

Heretics and Traitors

"All great truths begin as heresies"

George Bernard Shaw

"That is the essence of science. Ask an impertinent question, and you are on the way to a pertinent answer."

Jacob Bronowski

Heresy was not the most heinous crime in early Christianity, they took murder, greed and adultery more seriously. But as the religion became an integral part of feudal systems, this crime rose to the top of the heap. Mindless loyalty was important in feudal times to keep society functioning in the presence of enormous inequities of power and wealth.

Today's medical dissidents in AIDS, Cancer and other areas of medicine usually see major problems with the dominant paradigm, but are faced with institutions that do not want to discuss them. This is not an argument over minutiae, it is about the very fundamentals. AIDS dissidents argue that HIV tests just drive people into hopelessness and into taking toxic drugs that will kill them. There is almost no room for compromise with those who fully accept the HIV=AIDS=Death theory, and feel that antiretroviral drugs, for all their known flaws are the only option.

Prior to 1987, Dr. Peter Duesberg was considered to be one of the top retrovirologists in the world. For 25 years he claims that he never had a grant application turned down [Duesberg, 1997]. But, after his infamous Cancer Research paper was published [Duesberg, 1987] arguing that retroviruses, including HIV, could not cause disease, he found the scientific world turning against him. From that point on, not a single one of his government grant applications was approved, and he has had to rely on a small amount of private funding and his university salary to do any research at all.

How do we know whether Duesberg is another Galileo, or an attention-seeking huckster, like the people behind the Piltdown Man hoax of 1912 that fooled archaeologists

for 40 years, or the cronies of Philippine dictator Marcos who fooled many anthropologists and the National Geographic Society with the faked Tasaday stone age tribe in the early 1970s [MacLeish, 1972], the proponents of cold fusion, perpetual motion machines or human cloning?

One of the clues that this is not a conspiracy theory of madmen is that many AIDS dissidents are serious scientists. Apart from Duesberg, some of the most active and outspoken are Kary Mullis who won a Nobel Prize for the invention of the Polymerase Chain Reaction, the so-called 'Perth Group' from Australia, including Eleni Papadopoulos-Eleopoulos and Val Turner, David Rasnick, a protease inhibitor drug designer, Charles Geshekter, a professor of African Studies, Gordon Stewart, a Public Health consultant, Mohammed Al-Bayati, a toxicologist, Roberto Giraldo, a nutritionist, Vladimir Koliadin, a Statistician, Etienne de Harven, a retired Virologist, and Sam Mhlongo the head of the department of Family Medicine at Go-Rankuwa Hospital in South Africa. There are hundreds or thousands of others, including doctors, lawyers, people with and without formal scientific educations and, not least, HIV-positive people who have quit or never taken the drugs, but have more motivation than most to educate themselves.

Punishment

Punishment for religious heretics has sometimes been severe, particularly when the religion was able to harness the legal powers of the state. Although many were just re-educated and released, the first executions of reformers occurred in 1022 at Orleans. Death by burning was legalized by Frederick II of Germany and Sicily in 1231. Torture was permitted by Pope Innocent IV in 1252. The first Grand Spanish Inquisitor, Torquemada sentenced 2,000 to be burned to death in the 1400's.

The HIV/AIDS dogmatists have not yet imposed the death penalty on any person, although mandating antiviral drugs on children comes close. It is not far-fetched to consider that, in a place with the death penalty, transmission of HIV to a person who later dies could be construed as first degree murder.

Mark Wainberg, former President of the International AIDS Society stated in a major Canadian newspaper that AIDS dissidents should be jailed [Picard, 2000]. Several men have been jailed for having sex without revealing that they were HIV-positive at the time. In the case of Nushawn Williams, he supposedly infected 6 women in less than a year. The best estimates are that the risk of transmitting during heterosexual intercourse is about 1 in a thousand. Statistically, he must have had sex millions of times to stand an even chance of transmitting to all these women. But, statistical implausibility did not stop him from being sent to jail.

One woman in Canada, Sophie Brassard, had custody of her children taken from her because she refused antiviral medications. Her logic was that she had been HIV+ and healthy for a decade without antiviral medications, but the courts ruled against her.

The Tyson's in Oregon were forced, by court order, to stop breastfeeding their baby and agree to give Felix AZT – or lose custody.

Valerie Emerson was luckier. She believes that one of her children died from AZT, after which she pulled herself and her second child off the drug. Partly because the child then recovered his health completely, she won her court battle.

Dragging a few people to court has a chilling effect on many others. People who have heard about these cases are likely to either submit without a fight, or pretend to submit, and do subversive things like breastfeeding a baby in secrecy. Few will publicly defy the system.

Scientists are not treated much better. Punishments include an inability to publish, get grants, find graduate students to work in your lab or be promoted. The media, taking their lead from the majority of scientists, either ignore them completely, or write about them with thinly disguised skepticism, or sarcasm, or allusions to 'dangerous' ideas.

Worshipping Mammon

I have compared religion and science with, I hope, some success. A big gap is that, although I have identified a parallel between Satan and HIV, I have not identified a parallel with God. But, perhaps there is. Ultimately the motivation of the major players in HIV/AIDS boils down to money. It is no coincidence that Gallo contacted the patent office before announcing his claims about HTLV-III. Without doing this he stood to lose the royalties that would accrue to him, even as a government employee, for this invention.

This shows that the equivalent of God in modern HIV/AIDS science is Mammon. It is not just medicine that has been corrupted by money, the crisis in Enron, Worldcom was caused by an uncontrolled desire for personal enrichment.

Just as medieval religion made unthinking loyalty holy, and questioning authority into a sin, the late 20th Century made the Worship of Money into a new religion. The creation of new medicines, particularly for long-term chronic conditions, became one of the ways to achieve the highest levels of holiness in this sect. Patenting a blockbuster like Viagra turns many researchers, and all pharmaceutical companies, on. While there is nothing wrong with private companies making money, it must be tempered by a sense of morality. Corrupting research to make a medicine look useful when it is harmful, is immoral and criminal. Yet, those who practice it, often find themselves sheltered by their institutions. [Wilmhurst, 2002; Wilson, 2001]

There is a whole area of research where scientists study the influence of money on the analysis of clinical trials. For example, [Stelfox, 1998] found that researchers with financial relationships with manufacturers of calcium channel blocker drugs were more likely to publish papers with favorable reviews of them. [Barnes, 1998] found that the conclusions of review articles were strongly associated with the affiliations of the author. [Cho, 1996] found that original research articles with pharmaceutical sponsorship were more likely to draw pro-industry conclusions. [Bekelman, 2003] found that a quarter of investigators, on average, have industry affiliations, and they are more likely to reach pro-industry conclusions in their research.

Peter Wrobel, an editor for the British scientific journal *Nature*, commented that “there is so much commercial involvement in modern biology [so] it would be a waste of space for us to require of authors that they list all commercial interests in their discoveries.” Recently, the New England Journal of Medicine commented that anything under US\$10,000 was too small to worry about, and wouldn’t qualify as a conflict of interest.

AIDS scientists usually draw conclusions that favour industrial interests. Patented or patentable drugs are almost always seen as the solution to the disease, rather than non-toxic ways to strengthen the immune system. Condoms are the preferred method of prevention. Formula is preferred over breastmilk for children of HIV+ mothers. Cesarean sections are recommended instead of natural birth.

The Ultimate Heresy – “Does it Exist?”

Religion is the worship of God. Seriously questioning the existence of God is the ultimate religious heresy. But, it’s also a worldly heresy, because it threatens the organization built up around belief in that God. Questioning the existence of God in the middle ages would have been inconceivable. Even the most radical medieval heretics would never have suggested it.

Questioning the existence of HIV is today’s ultimate heresy. Even asking the question is heretical. In fact, it is rare for anyone to question the existence of any virus.

But, if HIV exists, why has it never been purified, not even from artificial culture systems? [Bess, 1997; Gluschankof, 1997] How have its RNA and proteins been identified without purification? How can the accuracy of tests be known when they cannot be validated by virus purification? How can a virus that, if detected at all, can only be detected by the most sensitive techniques known to man, be biochemically active? These are reasonable questions. But, they threaten the whole multi-billion-dollar structure based on the acceptance of this virus. That structure cannot tolerate people asking them.

“The broad mass of a nation will more easily fall victim to a big lie than to a small one.”

Adolf Hitler

“One of the most striking differences between a cat and a lie is that a cat has only nine lives.”

Mark Twain

Conclusions

Every generation believes that it is vastly superior to those who came before. We find it difficult to believe that our knowledge and methods of learning have much in common with the way beliefs were developed and distributed hundreds of years ago in a society that was largely illiterate.

Yet, if we are honest, very little of our information about scientific issues is direct, and few people take the trouble to examine the basic science, if it is even available.

We may believe in scientific discoveries because they either make us feel good, or because they provide a frisson of fear, like an alien movie. HIV/AIDS fulfils our deepest fears. Just like so many bad alien movies ([is there such a thing as a good alien movie?](#)), there are no outward signs of who has been captured until the alien life form bursts out, and then it is simply too late.

We want to believe that there are simple solutions to mysterious and complex problems - a pill, perhaps. But a quick solution would, paradoxically, not generate much respect for science. We would quickly take it for granted. Nor would it generate billions of dollars in revenue.

“The desire to take medicine is perhaps the greatest feature which distinguishes man from animals.” and “One of the first duties of the physician is to educate the masses not to take medicine.”

Sir William Osler

Religion and Science both promise us a better life, although Religion may emphasize a better after-life, and Science a better here-and-now. These organizations are both usually tightly controlled through a hierarchical structure, even though they both have their roots in free thought and egalitarianism. Reform is made more difficult when the same organization creates the dogmas, constrains the debates about the dogmas, and controls the interpretation of new ideas. Both began very inward looking and self-critical, but gradually evolved into over-confidence and intolerance as they acquired more power and influence.

Control is not absolute, however. It takes work to see around the facade, but not an inordinate amount. It takes courage to challenge the system, even if it is only questioning the advice of your own doctor. But, not more courage than any of us have. It takes education to analyze flaws in research, but we live in a highly educated society with free or affordable access to many materials. It takes stamina to struggle to get closer to the truth, knowing that no matter how hard you try you will never achieve absolute truth. But, if you look back after a while, you will be able to see how far you have climbed.

“Science may have found a cure for most evils; but it has found no remedy for the worst of them all - the apathy of human beings.”

Helen Keller

My aim tonight is not to impose a new dogma. I hope you will mull over my analogies with religion and find some flaws, and perhaps some parallels that I did not even touch on. But, if I can stop you from simply accepting ideas as scientific because they come from someone whose job description is ‘scientist’, if I can challenge you to make truly independent decisions about your personal health, I will have accomplished all that I could hope for.

“To see what is in front of one’s nose needs a constant struggle”

George Orwell

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