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THE CHURCHE OF SCYENSE

To the Guinea Pigs

Man's mind, once stretched by a new idea,
never regains its original dimensions¹

Oliver Wendal Holmes, Sr.²

Some of the claims made in this chapter and this book are unorthodox. As befits outrageous claims, they are backed up by plenty of evidence, and for this reason this chapter is something of a cardboard soufflé to chew through, but it is important to go into some detail to shed light on the machinations of science. I invite you to check my sources, including universities and research institutions as sound as any in the field of science, and to investigate the experimental details. Scepticism is an invaluable tool, to which all sources should be subjected, both establishment and underground, new and old, orthodox and fringe. Unfortunately, when we encounter information that does not gel with our theories about the world, we often decide it is rubbish without giving it a fair hearing.

Francis Bacon described four 'idols', which cloud our judgement; individual prejudices, those of our society, attachment to various ideas, and distortions due to language. He formulated the principles of inductivism to get around the idols. The inductivist first observes phenomena under a wide range of conditions. Next, he looks for patterns in the data, and finally he works out (induces) general laws governing the patterns. He may, for example, observe repeatedly that the sun rises in the east, and never in the west. Furthermore, it rises in the east under different conditions, on Tuesdays and Sundays, in

cloudy skies and clear skies, in London and Virginia. It occurs to him that the sun rises in the east every day, and he induces a law: the sun always rises in the east.

This is the scientific method, but in practice a great deal of personality and other contaminating influences pass through the pipette, and scientists sometimes bend reality to fit theory. In the nineteenth century, Oliver Wendell Holmes Sr. was collecting data on puerperal fever, which killed about 20 percent of new mothers shortly after childbirth. He published a large number of case studies, and noted a pattern. It nearly always struck a woman tended by doctors immediately after they had either performed an autopsy on a victim, or assisted the labour of a woman who would later fall prey. He induced that the disease travelled from the corpse or the mother to the new mother, and that the vector was the doctor himself.

A disease caused by medical intervention is called an iatrogenic illness. Holmes, who delivered poems as well as babies, felt that there was 'no tone deep enough for regret, and no voice loud enough for warning':

It may be said that the facts are too generally known and acknowledged to require any formal argument. ... It seems proper, therefore, to remind those who are in the habit of referring to the [standard medical] works for guidance that there may possibly be some sources of danger they have slighted or omitted. ... [A physician's] services are of questionable value whenever he carries the bane as well as the antidote about his person.³

Not only was Holmes suggesting that the Hippocratic oath 'to do no harm' was being violated, he was also denying contemporary medical theory, which did not recognise infection. He recommended simple hygienic procedures, but he suggested no mechanism of disease transfer. Baconian science is explicitly about generating laws governing patterns, not theories to explain them, but Holmes's colleagues preferred their beliefs to his advice. The idea of action at a distance reeked of magic, his evidence was ignored, and his warning was rejected as foolish superstition.

Hospital manager Ignaz Semmelweis came to the same conclusions five years later, again without suggesting a mechanism. Despite practically eliminating puerperal fever from his hospitals, he was dismissed from his posts, publicly ridiculed, and hounded by the Viennese medical establishment. Louis Pasteur discovered the vector a few years later in 1862 with germ theory, but by this time Semmelweis had been driven round the bend by all the needless deaths and orphaned babies. He was eventually beaten to death by staff in a

lunatic asylum, just as Pasteur's germ was spreading through Europe, and medics were finally starting to wash their hands. Today germ theory is the central assumption of medicine. Doctors claim Semmelweis and Holmes as martyrs in the battle against superstition, despite the latter's exhortation to cast into the sea the entire *materia medica*, excepting opium, wine, and 'a few specifics which our doctor's art did not discover'.⁴ But has medicine become any more open to new theories? A tale from the 1980s suggests not.

When Dr. Jacques Benveniste was asked to investigate homoeopathy, he was sceptical. A homoeopathic solution is prepared by diluting a substance, shaking it, adding some of this solution to more water, shaking again, and repeating up to 30 times. Avogadro's number predicts that about one molecule remains by the twelfth dilution, after which point they are not solutions but test-tubes of water, and should have the same properties as water. Homoeopathy is therefore considered a superstition, but Benveniste agreed to undertake some tests.

He was selected because he had developed one of the standard pharmacological tests ten years previously, which he would use in the experiments. The drug is introduced to basophiles (white blood cells), which are then stained. Healthier cells absorb more dye, so they are more likely to be visible to a technician counting. The number counted indicates the average health of the cells, and hence the drug's potency. The team found that the potency declined as expected until the tenth dilution, after which they were surprised to find it rising again. It fell, rose, fell again, then rose, and so on in a periodic wave. In 250 experiments over the next two and a half years, Benveniste consistently measured the pharmacological effect of pure water, and in 1988 he attempted to publish his findings in the prestigious scientific journal *Nature*. At this point, the machinations of the scientific establishment become interesting.

The editor of *Nature* John Maddox demanded replications before publishing. Bacon stipulated that results be replicable, meaning that a repeat of the experiment produces the same effects, but replications are not normally asked for **before** publication; disputes usually come after. Benveniste acquiesced, however, and French, Italian, Canadian, and Israeli labs successfully replicated his experiments. *Nature* printed his paper, along with an incredulous editorial. The following issue contained many letters disputing his findings, including one implying fraud with a suggestion that his figures were too good to be true. Benveniste pointed out that the critic had neglected to square one of the values, but his reply was never printed.⁵ Maddox promised to publish

further research only if it was a blind trial, but when a blind trial was successful, he reneged on his promise, citing statistical inconsistencies even though the paper was co-signed by a professor of statistics.⁶

Maddox took it upon himself to oversee another replication attempt, taking to Benveniste's lab not biologists but a stage magician and a fraud specialist. Lab technicians were made to conduct experiments at twice their normal pace whilst the fraud squad harassed them, and the magician performed disruptive magic tricks as they counted basophiles. The visitors also insisted on doing the pipetting, despite having no experience of this delicate procedure. According to *Nature*, the experiment produced three negative results, and Benveniste was judged to be a fraud. He claimed that three positive results were not reported, that one negative was in fact neutral, and that the others were due to poor pipetting.

Another sceptic coordinated double-blind experiments in four independent labs, using biologists rather than a fraud squad, and announced that 'the results compel me to suspend my disbelief and to start searching for rational explanations'.⁷ Between 1988 and 1994, at least twenty-one replications were made in other labs. *Nature* reported only one attempt, a failure in December 1993.

Denying replication is a standard tactic of the scientific reactionary. Newton's opponents denied for 50 years that a prism could split light, although this simple experiment is performed by schoolchildren today. Another standard tactic is attacking the theory. 'There is no objective explanation for these observations,' complained Maddox's editorial, and the results 'strike at the roots of two centuries of observation and rationalisation of physical phenomena'.⁸ This is science upside down. Inductivism begins not with theory but data, because, as Bacon noted, 'what a man would like to be true, he preferentially believes'.⁹ Presumably the pharmaceuticals companies advertising in *Nature* would have preferred not to believe in medicine containing nothing but water.

Benveniste began using a Langendorff apparatus, a macabre device that channels solutions through the still-beating heart of a freshly killed guinea pig whilst measuring the heart rate. Again, homoeopathic dilutions were effective. Benveniste also learned that heating the water or subjecting it to a strong magnetic field disrupted the effect, and he began to investigate an electromagnetic (EM) mechanism using a transmission machine. A sealed test-tube of a solution is placed on the input coil, another of pure water goes on the output coil, and a current is run between them. Despite never having touched the drug, the pure water still slows the heart. Benveniste believed that the heart reacts to

whatever remains in the water after the molecules are gone in the dilution experiments, and to what passes through the wire in the transmission experiments. The EM signature was also effective when recorded and e-mailed to another lab.¹⁰

Italian physicists specialising in coherent domain theory were invited to collaborate, but Benveniste's employers vetoed the visit. He was a research director for the French National Institute for Health (INSERM), but the relationship soured during the controversy. INSERM had already attempted to censor his research. They also put him on probation following a lab visit, where they decided that although his experimental practices were exemplary, publication of his unorthodox findings was a misuse of scientific authority.¹¹

He was ruffling feathers all over the shop. His lab (and another replicating his results) found that the supposedly pure physiological serum distributed by the Paris medical service caused immunised hearts to stop beating. He suggested that some electromagnetic contamination made it act as an endotoxin, and that it could contribute to cot death in hypersensitive babies who had recently been vaccinated. The people at INSERM were also hypersensitive. When Benveniste invited audiences to public double-blind experiments, INSERM sent him a threatening letter:

I very seriously draw your attention to the pernicious character of the spreading of such 'information'. Should you persist in this type of behaviour, I would be forced to draw serious consequences from it.¹²

Benveniste went ahead with the impudence of a French revolutionary. His funding was cut, and despite being one of the top scientists in the country, he published nothing more in the scientific press.

Homeopathy was born into controversy. Up until the mid-nineteenth century there was no orthodox medicine, there were competing healers including bonesetters, herbalists, apothecaries, barber-surgeons, and exorcists, each with different theories and techniques. Allopathic physicians attempted to restore balance by working against (*allo*) the symptoms (*pathy*), treating the wealthy without touching them, sometimes without even seeing them. A fever might be reduced by spilling overheated blood until the patient fell unconscious, and a massive 'heroic' dose of mercury was administered to treat syphilis. It cost an arm and a leg, and sometimes the teeth as well, which often fell out from heavy metal poisoning. Dr. Hahnemann gave up this sickening profession to become a translator, and homoeopathy was born when he came upon the principle of treating 'like with like' in the Hippocratic

corpus. Intrigued, he tested a malaria remedy on himself, and found that it gave him the same fever and shakes as malaria.

Homoeopaths prescribe high dilutions of medicines that cause the same (*homo*) symptoms (*pathy*) as the disease. It quickly became popular, winning many patients from allopaths, and in the cholera epidemic of 1854, the death rate at Golden Square Homoeopathic Hospital was under 17 percent, compared to over 50 percent in other London hospitals, causing a stir in the medical community.¹³ Allopaths objected particularly to the practice of prescribing different medicines for what they saw as the same malady. The data was suppressed, but came out when an aristocrat sympathetic to homoeopathy began asking questions in the House of Lords. The reaction began in earnest. Allopaths closed ranks, journals began rejecting papers on homoeopathy, medical students were expelled for studying the heresy, and homoeopaths were blackballed from medical societies.

In 1858, prejudice was enshrined in law with the Medical Health Act, which drew a line between authorised allopaths and other medics, including homoeopaths, mesmerists, wise women, female midwives, and any others upper-class men had trouble controlling. Medical school graduates were admitted onto a new medical register and could be struck off for referring a patient to a homoeopath or herbalist. Medicine became a specific set of theories and techniques practiced by a closed group rather than a competing set of approaches. The medical marketplace was polarised into orthodox and unorthodox factions, and medics have been obliged to follow the line ever since.

Scientific controversies trace the line between beliefs sanctioned by our institutions and theories of a 'pernicious character'. The stories of Hahnemann, Benveniste, Holmes, and Semmelweis reveal several themes common to the history of medical controversy. Firstly, scientific authorities put theory before observation, excluding data that conflict with orthodox theories. Secondly, the medical establishment reacts particularly viciously when the subject of iatrogenic disease is raised. Finally, supposedly 'scientific' institutions settle sensitive disputes with censorship, ridicule, intimidation, obstruction, and allegations of fraud, rather than experiment. Benveniste's experiments are intriguing. More evidence would be needed to settle the questions, but more research is not being done, because of the hostile environment. The question here is not whether the results prove anything; it is whether they have been given a fair chance to prove anything.

This is how our medical models are doctored and maintained, but they are not true, they are merely the latest set of assumptions. When our preconceptions are challenged, we always run back to daddy, to

some authority figure. It used to be the Lord and his prophets, then the Pope took over, and now the chairs are occupied by men in white coats, but these gowns do not free them from their prejudices, no more than a priest's frock spares him from dirty thoughts. When scientists and science teachers explain that astrology is rubbish or that magick doesn't work, they are being unscientific; a scientist would gather data and test the claim. Many scientists are clerics with their own axes to grind and their own wires to pull, and the religion they preach is Scientism, an updated version of the one 'true' truth, with the credo printed in hallowed textbooks, with examinations for confirmation rituals. The result is that we grow up thinking only what is reasonable, but ultimately unprovable, about life. And the rest be damned.

Science is quite different to Scientism. Science raises questions, and its answers can be either helpful or harmful depending on how they are used, but in its pure form science opens the mind to our incredible universe. Scientism, however, shuts down avenues of inquiry, decreeing what is and what should be. Scientism maintains the status quo, as did older religions, whilst updating the language of prejudice. Medieval women were mistrusted, oppressed, publicly humiliated, and sometimes executed as befits creatures susceptible to the temptations of the devil, as is written in *Genesis*. With the Age of Scientism, such superstition was laid to rest, and the real source of their irrationality was revealed to be the womb (*hysterium* in Greek, hence 'hysteria'). Later, the small female brain disqualified women from such responsibilities as the vote. Similarly, Catholic slave-traders were enacting the will of God and the curse of Noah on Ham's black descendents, but Humanist slave-traders cited 'scientific' racial theories to justify their business. The hierarchy of the medieval feudal system was once considered a faithful reflection of the hierarchy of heaven, but after the Enlightenment, social theorists and eugenicists found in Darwinism justification for oppressing and sterilising the 'criminal classes'. It was not science that overturned these preconceptions. It was rioting, fired up by Emmeline Pankhurst, Malcolm X, and the French Revolutionaries.

Another ghost Benveniste dragged from under the hospital bed was electromagnetism. This troublesome spectre has haunted medicine since the late 18th century, when Dr. Franz Anton Mesmer described 'animal magnetism', the invisible force surrounding and connecting living bodies. His prancing around perfumed rooms in Paris dressed like a magician and throwing women into fits prompted his former patron Louis XVI to call an official investigation. The cogs turned then as they do now. The committee sidestepped the issue of its potency against disease, and focussed on the theory. They could not find the

invisible field, and concluded that it was complete humbug, whilst releasing a secret report warning that mesmerism could disrupt public morality. Mesmer was ridiculed by the establishment, medics dabbling in the field lost their practices, curious medical students risked expulsion, and a fraud exposé sent Mesmer fleeing Paris in disgrace.

Despite this, Mesmerism flirted with respectability for a time. In 1842, Dr. John Elliotson, founder of University College Hospital, Professor of London University and pioneer of the stethoscope, addressed the Royal Medical and Chirurgical Society (of which he had been president) with an account of the amputation of a mesmerised man's thigh.¹⁴ The assembly concluded that the patient had either been trained not to flinch, or that Elliotson was mistaken.¹⁵ He continued to perform and publicise such operations,¹⁶ earning furious attacks in the medical press and the loss of his academic posts. His student Dr. James Esdaile oversaw over 1,000 operations on mesmerised patients at his Calcutta hospital.¹⁷ The medical community concluded that the weak-minded Hindu had been tricked into not flinching when his arm, cataract, or penis was removed. Dr. Cloquet's mesmeric operations were explained away in a similar manner in France.¹⁸

Again, the whiff of iatrogenic disease offended orthodox noses. Surgery was a gruesome business, requiring strong drink and strong men to subdue a man as his limb was sawn off. The mortality rate was 40-50 percent, whereas only five percent of Esdaile's patients died from surgical complications. When surgeons discovered ether anaesthesia later in the decade, it was welcomed as a weapon not against pain so much as against mesmerism. Ether is a toxic spirit that can be administered by any fool with a handkerchief, and it kept mesmerising sorcerers out of the medical monopoly.¹⁹ Chloroform, which replaced it, is also toxic, and though anaesthesia is more advanced today, patients still die from anaesthesia-induced complications.²⁰

Over 100,000 Americans die each year from drugs properly administered by hospital staff, and over two million more suffer serious side effects,²¹ but anyone who suggests a different approach risks his job, and may even die in a cell like Semmelweis in 1865 or Wilhelm Reich in 1957. Reich's work treating cancer with invisible 'orgone' energy was curtailed by US authorities. He was arrested, though never successfully prosecuted, but his books were burned, his equipment was destroyed, and he died in police custody. Yves Roard is another scientist who looked too deeply into the field. He was the father of both the French atom and hydrogen bombs, and head of physics at the École Normale Supérieure, as well as being a war hero and the father of a

prime minister, but he lost his grant when he demonstrated, with the help of water diviners, that the EM field of water can be detected.

We run to the doctor or chemist at the slightest sniff, but do the pills do any good? The first antibiotics were manufactured in 1945, but mortality from infectious disease was already plummeting. Tuberculosis deaths had already dropped by over 93 percent due to improved hygiene, nutrition, housing, and sewerage systems.²² Scarlet fever, measles, diphtheria, and whooping cough were killing nearly 90 percent fewer children by the time immunisation programs began. Pharmaceuticals reduced the rates of several diseases, but within a generation, sleeping sickness, malaria, and leishmaniasis were returning with a vengeance, and other victories may be similarly short-lived.²³ Infant mortality was declining, epidemics were rarer and less devastating, and life expectancy was rising before the new medicines became available, but despite this, antibiotics and other chemicals have become part of our daily diet, both directly and indirectly in factory farmed meat. Consequently, our natural immune systems are so weak that if the supply of antibiotics dries up, we may be in serious trouble.

I gave up shampoo at the age of 14, after hearing that your head produces oils to wash your hair if you let it, and sixteen years of soap dodging later, my hair is fragrant and dashing. At 15 I rejected brainwashing along with hair-washing, and stopped taking all chemicals except the strictly recreational. On the very rare occasions when I am ill, it passes within a day or two, whilst my friends eat pills and lie in bed for days or even weeks sometimes with the same old cold. I treat pain with ganja and meditation. My only serious illness was leishmaniasis, an aggressive and potentially fatal leprous infection endemic to the Amazon. It is famously untreatable with natural medicines, according to nearly every doctor, medical authority, naturopath, homeopath, and faithless faith healer I spoke to. I was told it would dissolve the cartilage in my nose, my ears, my throat, and my joints, and that the only proven treatment is a series of up to 180 intravenous shots of antimonium tartrate. I ignored the advice and followed two simple rules: 'Don't lie, and don't do what you hate'.²⁴ I was editing my book all about medicine and the manufacture of scientific truth, about the power of will and magick, and I couldn't honestly write it if I was medicating myself with jabs. I hate the idea of heavy metals in my blood and organs, and I can't stand injections. It is not the pain, so much as the idea of handing authority over my body to a doctor.

I attacked it with diets and teas, with buckets of lemons and heroic doses of ayahuasca. The locals thought I was bonkers and openly ridiculed the ignorant gringo, because even in the middle of the largest

medicine chest on the planet, Amazonians prefer to pay for something manufactured and approved, prescribed by a doctor and sold in a smart looking bottle. '*Tem que se humilhar,*' they said, but I didn't want to humble myself to a bacteria. I had gone to the Amazon to explore ayahuasca, so that is what I did. Nine months later, I was not only healthy but fundamentally different, having been through the most enlightening and empowering experience of my life. It was absolute hell, but it was amazing. I never considered what a gift a nose was until it was under threat, nor how lucky I was to be alive. Once you have watched your flesh putrefy, once you have expelled enemies from your body, you are ready to take on the world on your own terms.¹

Don't believe the hype! A top Department of Health official estimates that 80 percent of the funds his office channels have no effect on improving health, and much of the remainder is to deal with iatrogenic illness.²⁵ Despite having the most advanced medicine in the world, infant mortality in the US is relatively high, and Brits often look like unhealthy hunchbacks next to people from the developing world. Appendicitis, inflammatory bowel disease and osteoporosis are far more common in the developed world, as well as cancers and heart disease. My granny was a schizophrenic Transylvanian peasant, far too paranoid to let a doctor anywhere near her or to take anything more potent than garlick. I never saw her with a cold, a headache, or any other illness, and she died at the age of 86 with a full head of black hair, all her teeth, and all her wonky marbles, because only wonky marbles roll around the traps that catch everyone else.

Whilst antibiotics attack the beasties in our bloodstreams, they don't solve the root weakness arising from poor diet, unhygienic living, too many parties, too boring a job, or some other snag on a healthy lifestyle. Pharmaceuticals can control diabetes, so the habits that cause it need not be. Plants that work subtly are being replaced by steroid creams, anti-inflammatories, painkillers, and other allopathic medicines that work against the symptoms, and against the wisdom of the body. A fever has several functions. It makes you feel rotten so you stay in bed,

¹ Do try this at home, but take guidance from someone who knows, not a pharmacist, but a good herbalist. If the disease is serious, you must be absolutely determined and absolutely aggressive. The 'advantage' of pharmaceuticals is that they do everything for you. Plant medicines are not slaves, but allies, and you must do more than just neck them and wait. If you are picking them, make a poem for the plant. When you prepare them, do it with a prayer, and ask for their help. Your cancer, M. E., or paralysis should be thought of as a vicious pit bull that will maul you if you relax for a second. It is your adversary, and though you may find, like Jacob, that it was God all along, it is still God trying to kill you. Either way, whether you win or lose, it will be completely transformative.

sweating out toxins. It helps the enzymes of the immune system, which function better at a high temperature, whilst working against invaders that thrive at normal body temperature. Aspirin brings down your temperature, helping the microbe and hampering the immune reaction, whilst tainting your blood and aggravating the walls of your stomach. Painkillers mercifully comfort serious pain, but if you listen to the message of a twisted ankle at full volume, you might take more care on the stairs in the future. Medicine keeps us from hearing instructions on how to live.

We sometimes need medicines, but not necessarily isolated from their sources. Purified compounds are thought to be better because doses can be delivered more accurately, but there are several reasons why this is oversimplistic. Whereas pharmaceuticals are usually designed to strike at one specific disease process, traditional materials have a complex set of actions. Both tea and turmeric treat cancer at several levels in various ways, protecting healthy cells, inhibiting growth of cancerous cells, and interfering with the transfer of cancer to other sites, and reducing inflammation and scarring.²⁶ Curcumin (from turmeric) is active in over 60 molecular processes involved in cancer, and also against arthritis, diabetes, skin problems, cataracts, viruses, Alzheimer's disease, multiple sclerosis, and more.

Plant compounds work together in a remarkably complex synergy. White willow bark was long used to reduce pain until one of its ingredients (acetylsalicylic acid) was purified, synthesised, and made into Aspirin. Aspirin is now far more popular, and it is a good painkiller, but it also causes gastrointestinal bleeding and ulcers. White willow bark, however, does not, because it also contains compounds that protect the alimentary canal from the acid. Meadowsweet is another analgesic, with the same side effect countered in the same manner. In Chinese medicine, *ephedra* tea is used for weight loss. Diet pills with ephedrine isolated from *ephedra* make you thin, but they have been implicated in some tragic accidents, partly because pills are so much easier to pop than tea, and partly because ephedrine also raises blood pressure.²⁷ *Ephedra*, however, also contains compounds that counteract the effect on the blood pressure.

There is also the richness of natural medicine. *Kambo*, from the glands of a frog, contains many known anaesthetic, tranquiliser, antibiotic, and antifungal compounds, but whatever it did to push the ligaments of my friend's knee back into alignment after a motorbike accident has nothing to do with any of these. The attempt to isolate and synthesise these compounds shows scant understanding of its

complexity. *Kambo* provokes a different physical reaction each time it is administered, according to the ailments of the body. Amazonian Indians also use it to change bad luck, and to sharpen the senses for hunting. They harvest the secretion on the full moon, taking care to return the frog unharmed to the branch on which they found it, and they sing songs during the application. Obviously this means nothing to a biochemist, but I suspect a biochemist would be unable to cure so well with it. Shamanic medicine works on many levels, but principally with an interaction between the spirits of the plant and the patient. The Indians must know what they are doing to even think of subcutaneous applications of frog venom; it is certainly not something you would think of doing twice. It is by far the most horrendous physical experience I have gone through, and I have done all sorts of weird things to my body.

The relationship between biochemistry and spirit is unclear, but what is clear is that working with a compound isolated and out of context causes something to be lost. Traditional medicine is intelligent, and the interaction between the many compounds and those of the body is both complex and responsive. Ginseng, for example, promotes blood vessel growth in a wounded patient, but inhibits blood vessel growth in a cancer patient.²⁸ The traditional knowledge about the interactions is also fascinating. The medicinal compounds in turmeric, for example, are not easily absorbed into the body, but the process is greatly facilitated by black pepper.²⁹ Curry chefs have mixed this wisdom with a pestle and mortar for millennia, without biochemists telling them to do so.

Something far cleverer than your doctor is organising an exquisite harmony between compounds, between species and kingdoms. Doc leaves grow by stinging nettles to soothe the sting, coca bushes grow high in the Andes to combat altitude sickness, and anti-febrile cinchona trees grow in malaria infested jungles. But if you don't trust the wisdom of the universe, where do you put your trust? Pharmaceutical companies?

Camping in the Amazon recently, a friend told me he needed some anti-inflammatories from town. I pointed out a *pião roxo* plant two meters away. He was sceptical, but he was also desperate, because he could barely walk on a rapidly swelling ankle, and no one was going to town. He was fine within a few hours, and also a little wiser. Whilst it appears that pharmacies sell the fruits of scientific research, it may be more accurate to say that they capitalise on ignorance. In many cases, the cure is either free to pick or can be bought from local herbalists (though the *neem* plant, for example, has been patented and sold back

to Indians since 1985.³⁰) The vast majority of ailments, including serious conditions, yield to herbs that can be grown in window boxes, but we don't trust ourselves enough to prescribe for ourselves. We prefer an authority figure to do it for us. Pharmacists feed on our fears. When a weird blistery thing appeared on my girlfriend's cheek, the Bolivian pharmacist said it was a fungus that could be treated with pills today or injections tomorrow, by which time it would have overtaken her face. I told her it was her face and her choice, but I wouldn't eat his pills, and neither would I have eaten that skanky looking chicken the night before. We watched the blisters arise and pass, migrating around her face and down her neck for the next few hours, and that was that; she was absolutely fine, with no more side effects than a healthy scepticism of greasy skewered filth.

Doctors are usually trying to help, but they work with limited ideas from biased sources. Good doctors are restricted by their training, and bad ones are licensed to fiddle with your physiology and cut babies open. Disease is more than a set of symptoms. It is both bug **and** imbalance. It is also an opportunity to learn, and a warning signal. In my mid-twenties, a spot of eczema began to greet me the morning after a night on the piss. A Japanese doctor I was teaching gave me some steroid cream, which I accepted out of politeness because he was paying me a fortune, but ditched as soon as I left the building. Eczema was my friend tapping me on the hand, because I was drinking too much. Disease teaches surprising lessons, some of which are discussed in the following sermon.

Most of us are walking cocktails, and our immune systems have nothing better to do than turn upon their hosts. Asthma, eczema, hay fever, AIDS, ME, rheumatoid arthritis, and other autoimmune syndromes are soaring. We are also suffering from diseases which were never considered diseases before. One in eight Americans suffers from Post Traumatic Stress Disorder, and then there is Generalised Anxiety (GA). It used to be an adjective ('I'm stressed', 'I'm anxious'), but now it is a noun, a condition existing independently of the anxious person. As soon something exists, the fix becomes marketable, and the condition becomes impossible to cure. Whereas I sometimes have a shitty day, for a GA survivor it is their GA coming back, and time for another dose of Prozac.

Obesity, currently running at 51 percent in the US and only a few spoonfuls behind in England, was never a disease; it was too many pies. Now it is apparently glandular, but why are our glands malfunctioning? Could it be something to do with hormones in our food? Doctors are trusted and well paid to keep us healthy, so why do

doctors in chronically obese America take an average of less than three hours of nutrition classes during medical school?³¹ Are they too busy learning how to target receptors or hack away chunks of flab? Ugliness is another condition that never used to be a disease, but Americans spent over \$12 billion on cosmetic surgery last year.³² It is very clever, but does plastic actually improve lives? Women with implants are three times more likely to commit suicide.³³ Does plastic actually improve breasts? Like the rest of modern orthodox medicine, fake tits are superficially impressive, but less satisfying on closer inspection. The Cosmo beauty myth hides an ugly secret. Latin women seeking arse augmentation, Japanese women cutting their eyelids into Western form, aging women paying for their faces to be stretched and stapled into an expression of permanent youthful surprise; are they being treated for a physical disorder, or exploited for a psychological one? Plastic surgery, like antibiotics and chemotherapy, is not intrinsically bad, it can rescue burns victims or people with genuinely terrible honkers. The vanity industry built up around it, however, is geared towards exacerbating our insecurities, and it does untold harm, putting the whole complex in violation of the Hippocratic oath.

The problem is not just over-prescription of medicine; it is the over-medicalisation of society. Tranquilizer use is increasing six times faster than illegal opiate abuse, and twelve times faster than alcoholism in the US.³⁴ For many modern diseases, the pathogen is a pharmaceuticals company, a battery farm or some other aspect of consumer culture, and the vector is television. Commenting on anti-insomnia drug prescriptions doubling since 2001, the chief medical advisor for the US Consumers Union noted sagely that pharmaceuticals companies 'helped create the disease.'³⁵ This is not a disease. It's a market. Disrupted sleep is one of the first hints that something is out of balance. With all night TV blasting radiation and adverts for sleeping pills into your brain, and all night pharmacies happy to sell desperate people what they think they need, of course there is a wave of insomnia! These people don't need benzodiazepines; they need a nice cup of chamomile tea and a change of lifestyle.

Whereas Christians feared magick despite, or perhaps because Catholicism reeks of it, Scientistics fear the unproved and unordered, although nothing is ever proved in science and order is a matter of

ⁱ This research was first brought to my attention by a German plastic surgeon I met in Rio during one of his rare breaks from the inspecting the handiwork of his colleagues at the brothel.

perspective. Since the birth of science, editors of nature such as the editor of *Nature* have presumed to dictate what we may or may not think, but I'll think what I damn well like! I think there is something fishy going on, and judging by the extreme reactions to EM research, the fishiest fish are swimming in electromagnetic waves. Benveniste's research offers the promise of free, digitally storable medicine, downloadable anywhere in the world, without toxic chemicals and harmful side effects. You know what I think? I think that in France, where a quarter of prescriptions are already homoeopathic, high dilutions could have extremely potent effects in the financial sphere as well as the biological. I think that in a society bathed in radiation from mobiles and biased news networks, news that EM waves interfere with our bodies could also have potent effects in the social and industrial spheres as well. (*Appendix EM* surveys the evidence)

INSERM described Benveniste's experiments as 'black magic',³⁶ but the real black magicians are those doctoring the meaning of life, who have reality pinned down with rubber gloves. Black magic? Black white, wrong right, left right, left right, left right - a hex on both your houses! Reality is deep and subtle, not etched in stone like the commandments of Scientism. The average man on the street carries in his head an unholy book of unproved and unprovable scientific superstition, and is considered loopy if he believes in anything else, especially if it sounds like magick: Benveniste's charged potions, Semmelweis's touch of death, action at a distance, invisible fields, hidden pathways, and the sympathetic magick of treating like with like.

Let us leave our doctored doctrines behind with the stuffy old gits who produced them, and look to more fertile zones to make sense of the mystery. Over the next few chapters we will reach a little deeper into the crack between science and magick than is generally deemed polite, and see how our fingers smell when they come out.

Now wash your hands.

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