

Smoking And Something Else:

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And A Biologically Ignorant But Numerate Layman
Dissects The Specious Claptrap Of
The World's Most Eminent Cancer Specialist,
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And Explains Why He Received The General Motors Cancer Prize
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Preface

Up until fairly recently, like the majority of the adult population, I believed that the major cause of lung cancer in our society, indeed, the major cause of cancer per se, was cigarette smoking. Tobacco. Being a lifelong non-smoker and a virulent anti-smoker I was also of the opinion that smoking should be banned, tobacco factory owners shot and smokers ostracised like the social lepers they are.

Living in one of the greatest cities in the world, one is struck by the paradox of poverty amidst plenty. I am often struck also by the curious priorities some people place on creature comforts, not least of all the demon weed. A few years ago I wrote the following poem about this.

A Question Of Priorities

When walking through the Underground I came upon a man
Who had his face not been so red, I'm sure would have looked wan.
Propped upright in a corner, cider bottle on the floor,
He stood up as I passed by, saying: Please sir, help the poor.

As I was going nowhere fast, I stopped and turned to him;
His clothes were filthy rags, his eyes were wild, his face was grim;
He held out a scorbutic hand and repeated his plea:
Take pity on a beggar, sir, he said accusingly.

I smiled at him as best I could: Have you been sleeping rough?
These last eight years, replied the fellow, and it's mighty tough.
And when was the last time you ate? said I; he shook his head:
The day 'fore yesterday, I think, a crust or two of bread.

My hand reached for my wallet, an act I would soon regret;
He took the note and said: Thanks, I'd kill for a cigarette.

Yes, it doesn't scan properly, but all the same, I thought it was rather cute when I wrote it. I sent it to a clergyman with whom I'd had a rather lengthy and ultimately futile correspondence. Vicars are paid to be fools and to save souls, but I am not. It was only quite recently that I realised just what a terrible indictment of yours truly this poem really is; where once I was proud, now I'm almost ashamed to have written it. In spite of my more or less lifelong loathing of socialism, I was in reality perpetuating just the sort of claptrap socialists and other collectivists perpetuate under the guise of the "common good". The argument goes something like this: there are some things in our society which are too dangerous for the common people, the plebs, to do or to use. So such practices and substances must be eradicated. This specious argument is used to attempt to deny (often successfully) all manner of fundamental freedoms from freedom of speech (1) to the right to engage in voluntary transactions which, although they might revolt the majority of the public, are no business of anyone but the parties involved. (2)

But who decides what these substances and practices are? The unelected, self-perpetuating socialist "elite" of course. The end result of this is empire-building, to wit, the construction of a vast (and totally unaccountable) bureaucracy and the slow but sure strangulation of both civil liberties and productive economic activity. This bureaucracy can, and does, find more and more areas of our lives to regulate, and in order to do that, bankrolled as it is by the, for all practical purposes, limitless funds of the state (ie your tax money!), it can and does create moral panics, whip up media hysteria, and fabricate "junk science" to serve its own ends on the pretext of serving the "common good".

As Ayn Rand so tellingly pointed out, there is no common good. Those who would preserve human rights must preserve minority rights, and the smallest minority on Earth is the individual. (3) Without individual rights there are no rights at all, only concentration camps and Gulags, or, as is increasingly the case in Britain, the creation of a cotton wool or "nanny state". (4)

However, the issue that originally attracted me to the smoking debate was not the moral argument: there is no moral argument. As Chris Tame and every other member of the Libertarian Alliance will point out, in a free society, no one has the right to tell an informed, half-intelligent adult human being what he or she can do with his or her body, and that includes sticking obnoxious chemicals in one's mouth, up one's nose, and in one's arm. We do not however live in a free society, furthermore, we are not informed, rather we are misinformed. I will go further than that and state un-categorically that we are being lied to. Specifically we are being lied to by the anti-smoking lobby, by the health and safety lobby, by the cancer industry, and, most probably by its paymasters as well.

Smoking And Mortality - The Figures Don't Add Up

On Saturday, 7th March 1992, I attended a conference organised by FOREST (Freedom Organisation for the Right to Enjoy Smoking Tobacco). (5) The Director of FOREST, Chris Tame, is a leading Libertarian and Secretary of the Libertarian Alliance. I first met Tame c1982 but didn't meet up with him again until the start of the 90s. Tame, who joined FOREST as Campaign Director in 1989, (6) is a non-smoker, fitness fanatic and vitamin freak. He has always stated categorically that he defends the right to smoke purely on Libertarian grounds, and that he is not interested either in denying or minimalising the risks associated with smoking. However, the more he looks at the evidence, the more he is convinced that we are being led up the garden path. Well, he would say that, wouldn't he? That was my view too, until I heard Simon Wolff speak.

Professor Simon Wolff has been Lecturer in Toxicology at University College London since 1986. When he isn't lecturing, he works in the Laboratory of Toxicology at the Rayne Institute, which is part of the Department of Medicine, University of Middlesex School of Medicine. His academic qualifications are impressive, among other things he has degrees in biochemistry from Oxford and has carried out post-doctoral research at Brunel University.

Now, you can dismiss a civil libertarian as biologically ignorant, (7) but not a lecturer in toxicology. After the conference I rang Professor Wolff and went down to interview him at his laboratory. Some time later, I sent the transcript to Edward Goldsmith, founder and one-time editor of *The Ecologist*. (8) Subsequently he phoned me, said he was impressed with what Simon Wolff had to say, and that I might find it enlightening to come down to his office some time and browse through a couple of his files. I did. And I didn't like what I found.

So, what is the argument that attracted me to the smoking/cancer controversy? Specifically it is this. If an adult human being wants to put poisonous substances in his (or her) mouth, or bloodstream, that is his decision and his decision alone. He should be allowed to do what he wants with two caveats:

- a) that he does not harm others.
- b) that as well as enjoying the rewards of his folly, (9) he also takes the consequences. (10)

But what about people who do not wish to inject poisons into their bloodstream? Or to breathe them?

The role of air pollution, specifically diesel fumes, in the propagation of lung cancer, has been greatly played down if not ignored entirely, although the connection has been known for some considerable time. Writing as long ago as 1959, Stocks

stated that, "[r]esidents in large towns of England and Wales have always been subject to higher death rates than country dwellers...[t]wo diseases for which the urban excess is very pronounced are bronchitis and lung cancer..." (11) Okay, we don't have pea-soupers anymore, but there are more cars and lorries on the road now than ever, more planes in the air, and literally thousands of chemicals being released into the environment, many of them of very recent genesis and, therefore, their long-term effects on human beings as on the rest of the eco-system are totally unknown.

On 7th April 1993, I travelled to Oxford where I interviewed Professor Sir Richard Doll, who is hailed as one of the world's leading experts on cancer, if not *the* leading expert. (12) Sir Richard, a bright-eyed and bushy-tailed eighty-one year old, stated unconditionally that smoking and smoking alone is responsible for 150,000 premature deaths a year in Britain. (13) This is nearly double the figure issued by the Health Education Council in its 1986 fifteen volume monstrosity *The Big Kill*. (14) And it is three times the figure given by Dr David Owen in 1977 when he stated that "50,000 deaths in the United Kingdom were due to smoking, and could have been prevented by people stopping smoking." (15) Such figures are, from my experience, plucked out of thin air; more charitably, Professor Eysenck says they are "extrapolations from epidemiological evidence...and have no scientific meaning of any kind." (16)

Just how correct is that statement was vindicated by the late Professor Burch, who produced a devastating critique of *The Big Kill*, demonstrating it to be total nonsense. (17) Burch commented that "The biologically ignorant but numerate reader might be forgiven for concluding that epidemiology is not only a rigorous science but an incredibly accurate one, with an implied error in mortality estimates of less than one part in 77,774." (18)

I certainly qualify as biologically ignorant. Numerate? Well, I did one year of A Level; I didn't get much further than quadratic equations, but my mathematics is good enough to tackle this. Here is my analysis:

In 1990, (the latest year for which figures are available at the time of writing), the total number of deaths in the UK was 641,799, (314,601 men and 327,198 women). (19) Professor Doll would have us believe that 150,000 of these deaths, - that's 23.4% - are premature and due to smoking. But that is not the whole story. Of the 314,601 male deaths in 1990, 41,103 were of men aged 85 years and over. Whilst any death is regrettable, a man who dies aged eighty-five cannot in any meaningful sense be said to have died prematurely. Because women live longer than men, a great many more of them survive to a great age. In 1990, 101,421 of the recorded female deaths were of the age group 85+. When one deducts both these figures from the total, one is left with 499,275 deaths. If 150,000 of these deaths are "premature and due to smoking", that makes a total of 30.04%. But we are still not finished.

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A further 8,754 of the male deaths and 4,903 female deaths - a total of 13,657 - were of persons aged 24 years and under. It is totally inconceivable that any of those deaths can have been attributable to smoking in any meaningful sense of the word. When this further 13,657 is deducted from the previous 499,275, we are left with 485,618 deaths in which smoking may have played a meaningful role in killing the victim. This means that, according to Professor Doll's figures, 150,000 out of 485,618 - 30.88% of the available group - were killed by their habit. Yet in 1990, only 31% of men and 29% of women smoked. (20) Figures for previous decades are as follows. (21)

Year	% of smokers (males 16+)
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1961	71.9
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1971	64.5
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1981	50.0
------	------

	% of smokers (females 16+)
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1961	43.7
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1971	42.3
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1981	36.9
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Obviously, Professor Doll's claims are nonsense of the first order. If smoking kills so many people, and if it causes so many cancers, in particular cancer of the lung, that doesn't leave many victims for other carcinogens to kill. This is the accepted dogma and the one which is espoused by the anti-smoking lobby: ASH, the HEA etc. If the evidence for smoking=lung cancer is weak, the evidence for the smoking/coronary heart disease nexus is even weaker, but that, unfortunately, is beyond the scope of the present study.

Professor Doll: Senile, Bent Or God's Gift To General Motors?

There are really only three possible conclusions one can draw from all this: either Professor Doll is lying, or he is suffering from senile dementia, or he has learned subconsciously that he will be very well-rewarded if he says increasingly outrageous things about the ill-effects of tobacco.

Professor Doll is certainly not senile, and although two of my correspondents have told me that he is an outright crook, my impression of the Professor is that he is not a conscious liar but has, as Simon Wolff points out, "...done some simple and limited

work which has provided a partial answer capable of satisfying the less curious", and that he has "clearly...been rewarded for providing this *right* answer...He is a skilled diplomat, always on automatic pilot, with an instinct for knowing how to dissimilate and reassure." (22)

So, as we have seen, the picture painted by Professor Doll and his fellow "lifestyle academics" is that lung cancer is primarily caused by smoking. Forget about air pollution or any other pollution, forget about psychological factors, including stress. If you want to save lives, concentrate on increasing the tax on tobacco and every other conceivable tactic fair and foul to encourage people to give up the demon weed. In his letter of 13th May, 1993, Professor Wolff said of Professor Doll's view that "'very heavy air pollution [is] possibly contributing a 10% excess risk in smokers' is nonsense of the first order. The studies he quotes do not exist. His work has helped make sure they were never carried out." (23)

Hopefully, this publication and those which follow will contribute in some small measure to smashing the false paradigm which Professor Doll has been instrumental in constructing. Here then, without further comment, is what Simon Wolff has to say:

Professor Simon P. Wolff MA DPhil, Senior Lecturer, Toxicology, University College and Middlesex School of Medicine, interviewed Wednesday, 13th May, 1992.

Question: For years, doctors have been telling us that smoking causes cancer, particularly lung cancer. Surely there is no medical fact more certain under the sun than this. Are you telling us now that smoking doesn't cause lung cancer?

Simon Wolff: There is no doubt that cigarette smoking causes lung cancer, but there is also no doubt that air pollution, particularly from diesel, is a contributory factor, so important that perhaps with out air pollution we would see a much lower rate of lung cancer than we have. For example, in rural China, where people tend to smoke very heavily and where air pollution is much less, the differences in lung cancer rates between smokers and non-smokers is very small, also, the lung cancer rates are about one tenth of the lung cancer rates in industrialised countries. This observation was made time and time again in the 50s and 60s when there was great debate about the cause of lung cancer. One of the mysteries was why was the blame focused solely on tobacco smoking.

Question: Originally it wasn't just tobacco that was suspected of being the villain?

SW: There was an idea and there was much debate as to whether it was air pollution from the newfangled diesel lorries and buses or whether it was cigarette smok-

ing, and I think the blame just got allocated to cigarette smoking and all critical appraisal of air pollution as a lung cancer threat was very rapidly dropped.

Question: Very rapidly? I was under the impression that this was some thing that took decades to decide.

SW: Not really. What happened was that although the medical profession had known for some time that there was something bad about smoking - it had been known since the 20s and 30s that smokers tended to die younger than non-smokers - the thing was that there had never been any specific disease blamed on smoking. From the 30s onwards they began to realise that there was this entity of lung cancer which seemed to be increasing.

By and large the medical profession are very conservative; when they're given a new idea, they take years to accept it, and really they converted to the idea that cigarette smoking was the single cause of lung cancer over a two year period, and it took longer of course for it to become generally accepted throughout society, but the medics had decided within a couple of years that that was the thing. And I think that decision was rather helped along.

Question: At one time something like 90% of the population used to smoke?

SW: Yeah, all the men, just about. What is remarkable is that it was possible to put the blame on cigarette smoking because it was so culturally normal. It must be so difficult to accept that something that everybody did socially, normal activity, could actually be damaging as opposed to in the very vaguest of terms.

It's remarkable that people were persuaded so quickly that it was something that was very damaging. Even now it's very hard to change people's behaviour even when they know that a form of activity is very injurious.

Question: The obvious example is AIDS.

SW: Yes, what could be simpler than safe sex, but people seem to be very resistant to this idea.

Question: You say that it's been known for many years that smokers don't live as long as non-smokers. I remember reading somewhere that if you apply for life assurance, and you're a non-smoker, they will actualise you as though you were four years younger. When we say that smoking kills people, what exactly do we mean? An oft' quoted statistic is that smoking is directly responsible for 100,000 premature deaths in the UK every year. That sounds very emotive and very drastic, but what does that statement really mean, and is it accurate?

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SW: I'm not sure what it really means. Let's say for a second that tobacco smoking is the only cause of lung cancer. We know how many cases there are a year - in the UK there are about fifty thousand. (24) We know that people with lung cancer are very likely to smoke or to have smoked, over 90% of them. Quite a lot of non-smokers contract lung cancer too, but by and large, the lung cancer patients are those who are smokers or ex-smokers. So when one talks about all these premature deaths, they would allocate all these deaths and a proportion of those dying from heart disease and other cancers to smoking.

The Health Education Authority put out a booklet in which they allocated 95% of all lung cancer deaths to smoking, a certain proportion to another disease, and so on. The four years you mentioned is I think an actuarial observation - you can look at how long people live and then determine whether they are smokers or not. Whether you could say that the loss of four years was due entirely to smoking or to some other behaviour is, I think, an entirely moot point. Smokers tend to drink more, for example.

Question: This is a good point, to what extent is smoking symptomatic of an unhealthy lifestyle? Smokers don't run or exercise much generally speaking.

SW: For a lot of people smoking might be part and parcel of their lifestyle anyway. Most sportspeople smoke less: footballers smoke, marathon runners don't. But smoking (and other habits) are socially acquired.

Question: Would you say that smoking has nothing to recommend it?

SW: It's really bad for you though it does protect against Parkinson's Disease for fairly well-defined biochemical reasons.

Question: Can you explain this?

SW: There's an idea that Parkinson's Disease is caused by an accumulation of a certain type of chemicals in a certain part of the brain over the years. There is a series of chemicals in cigarette smoke called methyl-pyridines which seem to prevent the uptake of these nasty, damaging agents in these parts of the brain. So people who smoke tend to have less Parkinson's Disease. There are other diseases too which are modified positively by smoking.

Question: I've never heard this before.

SW: It's hardly broadcast, is it?

Question: Is it possible to have your cake and eat it, by extracting these chemicals say?

SW: That's quite interesting if you bear in mind that the technical fix to lung cancer was to introduce low tar filter tips. In principle you could reduce the toxic content of cigarette smoke but it's not the in-thing to do. There's no reason for example why cigarette smoke should contain so much carbon monoxide.

Question: How could you reduce this?

SW: You could have a catalytic converter on the end of the cigarette. It's possible.

Question: Have you mooted any of these suggestions?

SW: No, I wouldn't dream of it, but we can do this for cars. The point I wish to make is that diesel and vehicle exhaust particulate contains stuck on its surface hundreds of thousands of nasty, DNA-damaging chemicals which we can inhale deep into our lungs and where no doubt they cause damage to the delicate cells which are able to give rise to tumours. I don't think that matters very much until you have a chronic irritation, inflammation, and one thing about cigarette smoke is that it is a chronic irritant, it's very irritating stuff with all sorts of nasty, irritant particles.

Question: You're using the word 'chronic' here in the medical sense?

SW: Yes: long term. From our understanding of cancers and the evidence we have, it is entirely reasonable to suggest that air pollution by vehicles is a powerful initiator of cancer and that the irritants in cigarette smoke are powerful promoters of cancer. Generally speaking, with cancer you need to have both an initiator and a promoter in order to get the full tumour.

Question: Earlier, you mentioned the Chinese peasant study. (25) Was this a one off? An aberration?

SW: No, it's not, that was just nice because it was an accidental observation. A team went out there to see if atmospheric radon affected cancer rates. One thing about trying to look at health effects in developed countries is the enormous effects of socio-economic status on health: if you're rich, you live a lot longer than if you're poor.

Question: That's understood?

SW: Yes, the observation is understood, there is a gradient like this from social class one to social class four. [As he speaks he moves his hand diagonally upwards indicating that the rich live longer on average than the poor.] People say the poor smoke more, they don't eat the right foods and all the rest of it. But also, the poor tend to live in the most densely trafficked urban areas.

The purpose of the Chinese rural peasant study was that if you want to study the effects of very subtle carcinogens on the population, you have to do it somewhere there are no gross differences in socio-economic status. What the research team did was take fifty thousand people in one province where there was high radon, fifty thousand in a province where there is very low radon, and compared the two. When they did this they found there was no difference in the rates of lung cancer between the two provinces, which would seem to indicate that radon is not the cause of lung cancer. They also found, contrary to expectations, that although most of the men smoked, the women didn't, yet they had the same rates of lung cancer.

This was surprising. What was equally surprising was that these people had about one tenth of the lung cancer rates of those living in developed countries. And, as you move into the cities, you find that the lung cancer rates creep up. If you were a Martian epidemiologist, you would say that there is something about cities which contributes to the incidence of lung cancer. (26)

Naturally the team [Hofmann, Katz and Chunxiang] reported this, but similar observations have been made in broadly similar studies involving work on cancer rates in towns. At the time of the Doll lung cancer debate there were people looking at the lung cancer rates in various areas of New Zealand, South Africa and in the UK, town and countryside. What happened there was that there was a very powerful "pro-air pollution lobby", as it were. The [claim made was that] urban cancer rates were higher because people who live in towns smoked more...end of problem. There was no scientific basis for this, but all the same it led to the search for a possible link between air pollution and lung cancer being rapidly dropped.

Question: The point is that everybody knows (quote unquote) that smoking causes lung cancer, now you come along and say that it's not as simple as that. Who's going to believe you?

SW: To start with, not very many people, but we have enormous problems at the moment, an enormous number of people contract cancer in its various forms. We are actually quite concerned about environmental epidemiology and the causation of disease. We are gradually becoming much more aware of air pollution and we are starting to be a bit more specific about it. I think also that as people are now beginning to look at passive smoking they will naturally turn towards air pollution as another possible source of cancer, and that my speculations will be borne out.

Question: Speculations?

SW: Observations. I speak to so many clinicians about lung cancer and they say that the lung cancer thing is all tied up. Tell them about the air pollution connection, especially the young ones, and they look surprised, as though they haven't heard it all before. There's been such enormous clinical focus on cigarette smoking that it's been hard to look at anything else.

Question: Before we go any further, you're not in the pay of the tobacco companies?

SW: No.

Question: They might love you for saying this, but certain other people aren't going to.

SW: I don't think the tobacco companies are particularly interested because they've now got to the stage where they daren't say anything that is in any way pro-tobacco or try to diffuse any of the arguments, I think they've given up, but that's also part of it because when it came to the original debate over the cause of lung cancer, the motor and oil industries won because they had so much more money, their lobby was so much more powerful.

Question: Without postulating any fanciful conspiracy theories here, can we talk a little about the possible subversion of science by vested interests.

SW: Yes, I think that's happened.

Question: Who funds this laboratory?

SW: This laboratory is funded partly by the Medical Research Council and partly by various medical research charities.

Question: Is there any vested interest here? Are you ever told that you must not research in a certain direction?

SW: No. I'm not very sensitive to this sort of thing. Frankly, if the tobacco industry offered me money I'd probably take it. If Greenpeace offered me money or British Nuclear Fuels or Shell, I'd probably take it, but in fact the funding of science doesn't actually work like that. You put in rather specific proposals for specific bits of research and they are funded on that basis.

Question: What I meant was that nobody bites the hand that feeds them; is there something more subtle operating further up?

SW: It is true that it has become almost impossible to in any way question the single role of smoking as a cause of lung cancer. It's harder to get funding, but it doesn't actually stop you saying things or doing research into it.

Question: But if you can't question something, that is dogma, not science.

SW: That happens in a lot of areas of medical science; there is no such thing as the pure pursuit of truth. Scientists thieve, lie, cheat and steal like everybody else.

Question: I've read a lot of popular science; all these authors say that you collect your facts, frame your hypothesis, which then becomes a theory, then a law, and if at any time, even two thousand years later, someone like Newton or Einstein comes along and throws a spanner in the works, you have to discard the entire paradigm, the only caveat being that extraordinary claims require extraordinary proof. In other words, scientists must always be totally unbigoted, they must constantly re-examine their most treasured beliefs and unhesitatingly reject those which observation or experiment refutes. In reality though it doesn't work like that.

SW: That's complete b*****s. Galileo, he spent his time changing his arguments, trying to dupe his opposition, using dirty tricks, and we think of him as a great scientist. He was a very good scientist, but where he couldn't convince the opposition by force of argument, he resorted to all sorts of nasty tricks. This is something a lot of scientists do; often it's far easier to trip up the opposition than to promote your own theory.

Question: Can we talk a little bit more about poisons in the air? If you walk through Central London on a hot summer's day you can actually see the haze. We're supposed to have cleaner air now than before the *Clean Air Act* was introduced way back in 1956 but although we don't get pea-soupers anymore, the air in the capital, and indeed in most British cities and cities throughout the world, is atrocious. What sort of muck are we inhaling now, and in what quantities?

SW: I don't know about cities in particular, but I have worked out that road transport in the UK churns out one million tons of known carcinogens every year.

Question: That's just the carcinogens?

SW: That's just the chemicals which are known to cause cancer, about a million tons.

Question: Can you itemise some of them?

SW: You've got the soots then you've got all the polyaromatic substances - lots of six chain rings stuck together with interesting nitrogen/oxygen groups stuck onto them. These are some of the most reactive and unpleasant carcinogens that we know churned out in vast quantities. Something like 5% of the output of a car is benzene, which is a well-known cause of leukemia. We breathe levels in parts of London which are starting to be discussed as what should be the sorts of limits which should be occupational standard for an industrial setting. It's now reached the stage that if Tottenham Court Road were an American laboratory, it would run the risk of being closed down.

There are vast quantities of different sorts of nasty, reactive, complicated chemicals in the exhaust from cars, and which we breathe. You've got to imagine that you are

taking stuff which has been compressed and heated over a few million years, you're taking it out, putting it in a car and burning it under conditions of high pressure and temperature. This is a good way to make nasty chemicals. Part of the petrol is burned, you get the energy out of that, but all the rest of it just comes straight out of the back.

Most of these very reactive chemicals are bound to the soot, and this is the sort of muck that accumulates on London window sills. You're breathing that in all the time, it doesn't actually get out very well, and most of it can actually penetrate deeper into the lungs than cigarette smoke does.

Question: It affects smokers far worse than non-smokers but it affects everybody?

SW: Yes, it does, there is a definite lung cancer risk even for non-smokers so that although their pollutants and the smoking together are a good way of guaranteeing yourself lung cancer, certainly it's true that the nasty compounds which we breathe in during our day to day activities are able to produce cancer in some people.

Question: What *fringe benefits* are us city dwellers eligible for besides lung cancer?

SW: One thing which I find rather distressing is that a lot of carbon monoxide is poured out by cars. You often come up against the idea that these levels are too low to have measurable health effects, but one thing we do know is that carbon monoxide tends to accumulate in the blood of unborn babies, in the fetal haemoglobin. I'm pretty sure that's going to be a risk for low birth weight babies; women who live on busy roads tend to give birth to low birth weight babies.

You've got the nitrous oxides as well, which are respiratory tract irritants. Air pollution probably also contributes to emphysema, mainly because there are things in air pollution which are very oxidising, very unpleasant, and again it's not only smokers who contract emphysema, although if you want to contract emphysema it's helpful if you smoke.

Question: Would you like to see smoking banned?

SW: Let me put it this way, you would have to be consistent. If you wanted to ban smoking, you would have to eradicate air pollution at the same time.

Question: What can and ought we do about air pollution as far as cars are concerned?

SW: A total moratorium on all road building, not an inch on any road. There should be a graded increase in all forms of taxation on vehicles so that running a car costs about twenty times as much as it does now. You asked. I have thought about this.

We should move rapidly towards electric vehicles or alternatively to internal combustion with methane and oxygenated fuels which are much less toxic. There should be plans basically to force cars out of towns and cities; instead of moving outwards, we should move inwards. In London, something like 15% of city land is derelict, so taxation should be arranged to encourage moving back into the urban certain rather than vice versa. Extensive pedestrianisation.

Question: Cheap transport?

SW: Lots of people have been saying for years that we only pay about 10% of the total cost of private travel; somebody's paying for that, we ought to switch this huge subsidy. We don't need fancy new Underground systems; trams are dead cheap and they seem to work well on the Continent. Above all I think, it's land use. We ought to stop centralising our amenities so that people don't have to drive everywhere. A ban on out of town superstores would encourage people to shop in the neighbourhood. It's only recently that we've had this tremendous need for travel, and that's really the result of bad planning.

Question: What about aircraft? There are an awful lot of them now and they do burn a tremendous amount of fuel.

SW: I agree, I think that's a new problem. It is true that carbon dioxide emissions from aircraft are going to outstrip those from land transport in about five or ten years time if the projections are met. There have also been reports of much too much lung cancer around Heathrow.

Question: Is this clustering - a statistical freak - or is it real?

SW: No, it's a real effect, if you look around Heathrow, there's too much lung cancer around there.

Question: What about other airports?

SW: I don't know, but Heathrow is one of the better illustrations.

Question: So what do we do about this? We can't do away with planes entirely.

SW: You've got to ask the question: why are people travelling? It seems odd that you end up talking to a toxicologist about transport planning. We know why people use cars a lot, it's because they've got to. We [in Britain] travel about 60% more than people do in Holland because every thing has become so spread out, so badly thought out. Little things that you tend not to think about like people now being able to choose what school they can send their kids to, so they can choose the nicer sort of school ten miles away which means that they've got to do an enormous round trip

along with other parents to get to that school whereas twenty years ago you just walked to school half a mile or a mile away.

Little things like that make an enormous difference as far as people travel. As far as air travel is concerned, I don't know. I think that's due to the fact that somebody has to be subsidising air travel a lot because it's ridiculously cheap. I don't see why it's come down in price so much. I remember flying to Paris over twenty years ago and it was about two hundred quid!

[Nowadays you can buy a return ticket to New York for less than that, which, if you take inflation into account, means that the real cost of air travel has fallen dramatically.]

The real cost of transport is being very happily subsidised, and I would guess that the people who are subsidising it are the people at the destinations who think they are getting lots of money out of tourism when in fact they are suffering massive environmental degradation at tourist resorts.

Question: You mentioned alternative fuels, methane and the like, what sort of investment are we talking about here? And what about catalytic converters?

SW: Catalytic converters don't really work; they make no difference to air pollution in towns. Methane is a natural gas; we have a natural gas pipeline which is fairly extensive. I've spoken to engineers about this. A methane powered car would have a slightly smaller range - you'd need a larger tank which you would have to refill more often. In terms of performance it's not much. Somebody even said to me you could power the entire UK fleet from the natural gas which leaks out of our system every year anyway.

Question: What waste products does burning methane produce?

SW: A little bit of carbon dioxide, water, a little bit of formaldehyde if the thing isn't tuned very well. If you had a methane-powered car with a catalytic converter then it would just produce carbon dioxide and water.

Question: As opposed to how many chemicals which come out of regular engines?

SW: Thousands. Thousands.

Question: Is diesel worse than petrol?

SW: I'd say so. It produces more soots, and I think soots act as very good carrying agents to get things deeper into the lungs.

[Professor Wolff added] We know that our overall improvements in health, longer lives, better quality of life and so on over the course of this century have little to do with modern curative medicine. Rather they have a lot to do with nutrition, sanitation, water...There is a view these days that everything has been fixed, so the cause of cancer is a bit of a mystery. Medical science can cure these, we just have to wait a while. In reality though, transport and land use are the next great public health issues which we have to tackle. We don't have to go back to the Stone Age as some people have suggested, but it is possible to have economic development without people having to travel further and further afield. That really is the cause of our air pollution.

It's not just air pollution; if you move things further and further apart, if you build supermarkets out on the ring roads, this inevitably means that all the small shops disappear, in part because they're competed out and in part because the rich tend to drive out to the new mega-stores. This means inevitably that the rich have the best diets and the poor are disenfranchised in that way. That may sound trivial, but though surveys have shown that the national diet has improved overall in terms of Vitamin C, fibre and so on, that improvement has occurred only in the car owners. We have scurvy now in this country. That is an enormous achievement of the British planners that they have re-introduced scurvy. We'll be having rickets again soon.

Question: To what extent?

SW: Mainly it's in the poor and the elderly, frank Vitamin C sub-nutrition and a few cases of scurvy. And that's bad, we shouldn't have scurvy. And that is entirely due to the fact that we've got rid of high street shopping and replaced it with one stop mega-stores to which you drive every weekend and fill up your fridge-freezer. It's great if you're rich, but if you're poor, elderly or you can't drive or if you're disabled, it's disastrous. And a lot of people fall into one or more of these categories, something like 40% of the population.

Conclusion

Although the evidence is not yet all in - is it ever? - an elementary critical examination of the facts as presented by Professors Doll, Wolff and others, makes two things abundantly clear: smoking manifestly does *not* kill 150,000 people prematurely in Britain every year. As Eysenck says, it may not even be possible in any meaningful sense of the word to apportion any deaths at all to smoking. It is clear though that as well as the proven correlation between lung cancer and smoking, and indeed between tobacco and many other "smoking-related diseases", there is a strong connection between "smoking-related diseases" and air pollution, particularly diesel. The big difference between tobacco and diesel is that no one has to use tobacco, but for the overwhelming majority of people in Britain and indeed

throughout the developed world, air pollution is something we have no choice but to tolerate. (27)

It was Max Planck, the father of quantum mechanics and one of the greatest scientists of all time, who said, "The new scientific truth does not triumph by convincing its opponents and making them see the light, but rather because its opponents eventually die, and a new generation grows up that is familiar with it." (28)

Professor Sir Richard Doll is now eighty-one years old. He is also a very pleasant, charismatic and imminently likable fellow; I hope that in due course he receives his telegram from the Queen. But let us hope too for the sake of future generations - that, unlike those other pseudo-scientists Franz Boas, Siegmund Freud and Karl Marx - the evil he has done does not live after him.

Notes and References

(1) Often under the pretext of eliminating *racism, sexism* or some such non-existent mental illness. Also in this connection it should be borne in mind that film censors were initially regarded as defenders of public morality. At one time it was not permissible to portray such characters as corrupt police officers, presumably because there was no such animal. In view of the plethora of well-documented fit-ups which have come to light in recent years: the Guildford Four, Birmingham Six, Cardiff Three et al, this was wishful thinking of the most fanciful (and dangerous) sort.

(2) The two most obvious examples are prostitution and selling "dangerous" drugs. Repulsive as they are, whores do provide a service which no man is obliged to seek out. The principal objection to drugs such as marijuana, cocaine, heroin and of late, crack, is that they are recreational. Millions of people in this country and countless hundreds of millions throughout the world buy poison everyday. *

* The same day I wrote this I purchased a box of 120 halibut liver oil capsules from my local *Superdrug* store. One capsule contains 400 international units (10 microgrammes) of Vitamin D, four times the recommended daily intake. Clearly, Vitamin D is hundreds of times more toxic than marijuana.

(3) The exact quote is "...the smallest minority on earth is the individual. Those who deny individual rights, cannot claim to be defenders of minorities.", from page 132 of the essay *Racism*, from *The Virtue of Selfishness: A New Concept of Egoism*, by Ayn Rand, published by Signet, New York, (1964).

(4) A phrase - probably of American origin - popularised by *Times* journalist Bernard Levin.

(5) *RISK, FREEDOM AND PATERNALISM*, introduced by Lord Harris of High Cross. The other speakers were Gordon Read of Choice In Personal Safety, Piers Merchant, Public Affairs Director of the Advertising Association and Christie Davies, Professor of Sociology at the University of Reading.

(6) Tame is now Director; Marjorie Nicholson (nee Brady) is currently Campaign Manager.

(7) Tame is in fact extremely well-read on many matters related to the health of the human organism. Just as important, he knows how to read between the lines. In 1992 in his role as Director of FOREST he published a pamphlet on "junk science" * which exposed the false propaganda of the American Environmental Protection Agency.

* *"Junk Science" In Action: Critical Notes on the Environmental Protection Agency (EPA)*, by Chris R. Tame, published by FOREST, London, (June, 1992).

(8) I had previously interviewed Goldsmith for a magazine feature.

(9) Although in my humble opinion, the rewards of smoking are minimal if they exist at all, most smokers clearly disagree. For example, some people find it relieves stress.

(10) The consequences of smoking can be a decline in purchasing power (due almost entirely to punitive taxation); halitosis; yellow teeth; body odour; smokers' cough; increased susceptibility to infection including bronchitis and emphysema; chronic obstructive lung disease; increased risk of cancer; premature death.

(11) *CANCER AND BRONCHITIS MORTALITY IN RELATION TO ATMOSPHERIC DEPOSIT AND SMOKE*, by Percy Stocks, (page 74), published in the *British Medical Journal* for January 10, 1959, (pages 74-9).

(12) It was Doll, along with the late Sir Austin Bradford Hill (regarded as the founding father of modern epidemiology), who first established the link between smoking and lung cancer. Their famous (and grotesquely flawed) Doctors' Study (not to be confused with the Soviet Doctors' Plot) is still regarded as the bedrock on which research in this field is based. The Doctors' Study has not only been severely criticised but in at least one country it is held up as a crowning example of how not to study epidemiology.

(13) So that the reader is in no doubt exactly what Professor Doll means, I reproduce here the following fragment from this interview:

Question: The latest set of figures given us by the anti-smoking lobby is 150,000 premature deaths a year due to smoking.

Sir Richard: That's right, yes.

Question: That gives the impression that if everybody stopped smoking there would be 150,000 people less a year dying. That's nonsense, isn't it?

Sir Richard: That's nonsense, yes, they'd just die ten years later, older, losing actually on average about fifteen years of life, the ones who die of smoking-related diseases.

Question: As much as that?

Sir Richard: Yes, it's a great deal.

Question: When we use the term smoking-related diseases, I recall the case of a 25 year old non-smoker who died of lung cancer earlier this year. Obviously that's a rather exceptional case, but would you say in your opinion that there are 150,000 premature deaths a year in this country due to smoking alone?

Sir Richard: Yes, I would say that 150,000 more people died as a result of their smoking than would have died without smoking. For smoking to do so much damage...giving up can't [prevent] it all.

Question: We're talking about years here?

Sir Richard: Yes, we're talking about years of life lost.

(14) *The Big Kill: "Smoking Epidemic In England And Wales."*, (in 15 volumes), Edited by John L. Roberts and Paul A. Graveling, published by the Health Education Council, * (1986).

This publication, which was produced jointly with the BMA, purports to be a breakdown region by region of smoking fatalities and hospitalisations.

Page 5 claims or implies that smoking has killed three million adults in England since the end of the war. Two pages previously the claim is made that the number of deaths given is an underestimate.

The entire publication is complete nonsense cover to cover and a waste of public money, for example:

Volume 1, page 38 estimates that in Carlisle, 168 people died from smoking during the course of the year.

Volume 2, page 62 estimates that in Glanford and Scunthorpe, 149 people died from smoking during the course of the year.

Volume 3, page 105 estimates that in Sheffield, Brightside, 201 people died, and so on for fifteen volumes, throughout England and Wales. (Separate volumes were published for Scotland and Northern Ireland). And so on.

The Big Kill estimates the number of people killed annually by smoking in England and Wales at 77,774! It also professes to calculate the number of beds filled by smokers and to itemise the cost to the National Health region by region.

* Now the Health Education Authority.

(15) Cited by Hans Eysenck in *Smoking And Health*, (page 19), his contribution to *Smoking and Society: Toward a More Balanced Assessment*, Edited by Robert D. Tollison, published by Lexington Books, Lexington, (1985).

(16) Eysenck, page 19, (ibid).

(17) *Can epidemiology become a rigorous science? How big is The Big Kill?* was originally published in 1986. It was later republished posthumously (pages 243-56) in *The Biological Basis of Disease: Selected papers by P.R.J. Burch*, Edited by M.S. Chesters and J.E. Burch, Leeds University Press, (1989).

Susan Chesters PhD., who works in the Department of Medical Physics in the University of Leeds, was a collaborator of Professor Burch; Jane Burch PhD., his widow, now retired, worked in the Department of Biochemistry and was *au fait* with her late husband's work. Professor Burch, like Simon Wolff, Hans Eysenck and others, was totally unimpressed with Professor Doll's claptrap; he also developed a unique (and yet to be refuted) theory of disease which he expounded in his book *The Biology of Cancer: A New Approach*, published by MTP, Lancaster, (1976). *The Biological Basis of Disease* contains a complete bibliography of Professor Burch's scientific writings.

(18) Burch, *Biological Basis of Disease*, page 243, (ibid).

(19) These and all the figures that follow are official government figures compiled by the Central Statistical Office and are published in the *Annual Abstract of Statistics*, (No 128 Edited by Geoff Dennis), published by HMSO, London. These figures are from the 1992 edition. As I write these words, the 1993 edition has appeared in Westminster Central Reference Library.

(20) Press cutting from *Daily Mail*, (Lincoln Hannah MediaScan dated 4th September 1992, supplied by Judith Hatton of FOREST).

(21) From pages 27-8 of *UK Smoking Statistics*, by Nicholas Wald and Ans Nicolaidis-Bouman, Second Edition, published by the Wolfson Institute of Preventive Medicine, London, (1991).

Male figures are for all smokers; female figures exclude pipe smokers.

(22) Personal correspondence from Professor Simon Wolff, May 13, 1993. The *right* answer is a reference to Professor Doll's award of the 1979 General Motors Prize. The following extract is from our interview, 7th April, 1993.

Sir Richard: I've been very lucky in the awards I've been given. The first one was the United Nations Award For Cancer, which I think was based on three things: our study on smoking, the work I've done on radiation, and the work on asbestos, show-

ing that asbestos was a cause of lung cancer. That was all work which I did in the 1950s. The United Nations hasn't given any other awards for cancer research, although it gave three on that occasion.

I've also had the General Motors Award. That's a major award that General Motors started in 1979 and I was fortunate enough to get one of the first three. They wanted to encourage people to do research into cancer, and announced they would give a reward every year. It is a very substantial one, and has continued ever since.

Undoubtedly, Sir Richard does believe these awards are attributable to "luck" Though if Rothmans or Embassy had awarded a very substantial prize "to encourage people to do *research* into cancer", the rubes back on main street would long since have woken up.

(23) Ibid.

(24) The recorded deaths for malignant neoplasm of trachea, bronchus and lung for 1990 were 34,375 in England and Wales; 4,123 for Scotland; and 771 for Northern Ireland; a total of 39,269 for the UK in total or about 6% of all deaths. These figures have been more or less constant for the past fifteen years. *Annual Abstracts*, (op cit).

(25) Reported by Werner Hofmann, Robert Katz and Zhang Chunxiang in *Lung Cancer Risk at Low Doses of Alpha Particles*, published in *Health Physics*, (pages 457-68), Vol 51, No 4, (1986).

(26) Again, Sir Richard is way off beam, as the following extract clearly shows:

Question: There is though a connection between living in towns and lung cancer?

Sir Richard: Well, yes, a small relationship there was, though it's disappearing now, but this could be explained almost wholly if not wholly by the difference in cigarette consumption between towns and the countryside, particularly people in the countryside tended to go on smoking pipes longer; they switched over to cigarettes later, and on average they smoke less than people in towns.

Now with the change in smoking habits we've seen mortality in London going down, and some of the Northern cities where it's gone up, so it's not even true to say it's in towns now, it's in selected towns.

Perhaps it's time you retired, Sir Richard.

(27) In view of Professor Wolff's revelations - which, as noted, are not new - it is all the more remarkable that the anti-smoking lobby has been able to get away with its specious crusade against passive smoking. If, over the past forty years, the media

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had paid half as much attention to diesel and other pollution as it has to passive smoking over the past ten, some of the suggestions Professor Wolff outlined in our interview may have been put into practice. And if Professor Doll had paid the slightest attention to it, he might have made a positive rather than a retrograde contribution to cancer research. On the other hand, he probably wouldn't have received the General Motors Award.

(28) As cited by his fellow German and unquestionably one of the greatest psychologists of all time Hans Eysenck, in his autobiography, *Rebel With A Cause*, (page 67), published by W.H. Allen, London, (1990).

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