
The standard arguments of the WHO and mobile phones proponents.

Experience from the international workshop on Electrical hypersensitivity.
25-26th October 2004, Prague

Present were representatives from a wide number of countries, showing that electrical hypersensitivity (EHS) is an international problem. 75 researchers from universities, 25 engineers from the cellular phone industry and around 35 officials from radiation protection authorities and ministries were present at the discussions. Unfortunately only 4 medical doctors were present. Nine representatives of self-help groups were present.

Knowledge for sale

That knowledge can be bought is a basic issue with research relating to cellular telephony. Although such a tactless way of putting it does not correspond to the 'political correctness' expected in this area of science, it does describe a link which cannot be ignored. I would like to add that I am a journalist and I do not intend to discuss the studies in scientific detail. My concerns are more the premises and the accountability of science. If I consider how superficially the problem of accountability is used in connection with hazardous technologies, I find it difficult to be absolutely scientific.

Gerd Friedrich, Secretary of the Forschungs-Gemeinschaft Funk (FGF) and Prof. Dr. Reinhold Berz, Chairman of the organisation Non Ionizing Radiation Medical Expert Desk (NIRMED) both spoke in euphoric terms about the Prague Workshop: 'The WHO and the supporting organisations have shown courage with this conference', concluded Friedrich and Berz. 'They took the bull by the horns without any prejudices. They let experts and – importantly and for which they are to be praised – also those affected speak.' Well anyway, simply let them speak ... I would think.

Workshop Summary (in German):

[http://www.fgf.de/fup/publikat/news_einzel/NL_04-04/Internationaler EMF Projekt Workshop Elektrohypersensitivitaet 04-04d.pdf](http://www.fgf.de/fup/publikat/news_einzel/NL_04-04/Internationaler_EMF_Projekt_Workshop_Elektrohypersensitivitaet_04-04d.pdf)

So what was the courage that these men were referring to?

In the following, the most significant arguments are presented, with which the affected group are time and again confronted, in local community / municipal meetings and events from the cellular phone operators as well as at the Prague

Workshop. This information is important because the representatives of the cellular phone operators have been trained to provide particular, standard replies.

However, I would like to start with this:

The obstructed search for the truth

Science has problems at the moment with the search for the truth. Specifically, I see three main problems, which play a role in the sad state of affairs regarding the assessment of hazardous technologies such as cellular phone radiation.

1. The dependence of research on third party funding. Unfortunately the contributors in Prague did not reveal who had paid for their studies. Maybe one or more of the experts is convinced that he was not influenced in his research by the financial backers. However, the backer must be satisfied, in order to obtain further work, so that many researchers are under pressure. One might see his job in jeopardy, his new house which still belongs to the bank, the children who want to go to college, etc; the leader of the research project has to reflect on these things.
2. The neoliberal attitudes prevailing in politics and the economy, i.e. the inherent risks and health dangers are consciously taken into account and legalised in order to support the economy.
3. This is based on misconceptions about scientific thinking. Not much is said about the restrictive viewpoint of science, as it is practiced to a large extent. The astrophysicist Arthur Eddington found a nice example of this situation: 'A scientist fishes with a net with a 10 cm mesh. As a scientist he concludes: 'All fish are at least 10 cm long and have fins.' At this point a passer-by mentions that he has seen fish which are 5 cm long. To this he receives the absurd reply: 'Anything that my net can't catch is no fish!'

Every scientific study is designed with its own mesh size. Not everything can be understood and proven scientifically, rather, we have to rely on the basis of our experience to understand the world. For instance, for millennia, man and beast both know that the sun rises in the morning and sets at night, yet science even now cannot prove rigorously and to the last detail why this is so. The reality in which we live is not just dependent on scientific proof.

Modern science has however taken over wisdom to such a degree that there is little space for other experiences. And it may not be long before science is practised using the dodgy method of the fishing net example. However, to remove such an inaccurate or false paradigm from the usual thought-structures take a great deal of argumentation. Of course to do this also requires the will and motivation to do so.

What is disastrous, is how this antiquated logic, which does not reflect on the situation we find ourselves in, but instead serves the powers that be, has consequences for health and the environment. It is really time to cast off certain old

ideas of science. From the universities, where science is supposedly based on thorough logic, it's incomprehensible that we hear no protests.

The Standard Arguments

My question is: Are the experts at the WHO, ICNIRP, the Bundesamt für Strahlenschutz (BfS: Federal Office for Radiation Protection), the Strahlenschutzkommission (SSK: Commission for Radiation Protection) and other authorities exploiting this Achilles heel deliberately? Or don't they want to recognise this?

Time and again, one has similar experiences at events on this subject or is confronted with the following arguments and tactics. I think it would be helpful to set out a structure as follows.

Argument 1

The simplest thing is to ignore criticism.

Certain key contributions in the field of EHS were not made at the IWWHO, such as

- the reflection study by Franz Adlkofer
- Horst Eger and co-authors with the Naila Study
- the EEG studies of L. von Klitzing
- Peter Semm's work on pigeons and finches
- the 28 million Dollar study by George Carlo
- the research by Leif Salford showing changes in rats' brains caused by cellular phone radiation under the legal limits.
- the work by Ulrich Warnke on nitric oxide, providing a possible model for biological damage caused by high frequency transmitters.

Argument 2

A link between EHS symptoms and mobile phones is accepted by some researchers but one does not know exactly 'how' it happens.

The principle here seems to be that if it should not happen, then it cannot happen. This is an astonishing way of looking at things. A cause-effect relationship is observed and found to have a rational explanation, yet since science has not (nor never will be) been able to discover the exact interplay between all the possible microbiological, electromagnetic, biochemical and physiological mechanisms, the effect is declared to be non-existent. This is somewhat analogous to scoring a goal in football and then

having to prove scientifically over which atoms the ball rolled on its way to the net and how these atoms interacted with each other before the goal can be accepted.

For instance Norbert Leitgeb from Graz, Austria, who discovered many symptoms in the course of his studies, was very circumspect in his summing up. He said that a causal link to EHS had not been established. Is that then a reason to ignore the symptoms, and not to draw any clear conclusions? Has the thought process been suspended after so many years of research?

Here no single straightforward proof of a cause-effect relationship is to be expected anyway, since we are not dealing with dead material.

Argument 3

The symptoms mentioned in cellular phone studies are vague.

At the Prague WHO workshop several presentations were given, including one by Michael Repacholi, properly describing some important symptoms of electrosensitivity:

- central nervous system (e.g. headaches, fatigue, stress, sleep disturbance)
- skin disorders (e.g. acne, rashes)
- muscle aches
- eye problems (irritated eyes)
- other symptoms (e.g. ear, nose, throat, digestive disorders)

But missing were:

- heart-rhythm disturbance, high blood pressure
- concentration, memory and attention deficit disorders
- brain tumours, including the correlation between their laterality and that of handset use
- epilepsy

The symptoms could be attributed to different diseases, stressed Repacholi and the Swedish epidemiologist Anders Ahlbom. Patrick Levallois of Quebec found it confusing that in different countries different symptoms were cited: in Sweden it was skin problems, in Germany neurological problems and in the US the talk is of an 'electro-allergy'.

Electrosensitivity is real according to Repacholi. First of all he lists all of the symptoms and then at the end does a U-turn. He says that there is no clear medical diagnosis, therefore one cannot come to any conclusions. The available studies show no link between EMF and EHS. One could observe this strange U-turn over and over again at the

workshop. However, nearly all electrosensitive individuals show some symptoms such as headaches, sleeplessness and concentration disorders. In this respect the symptoms are indeed specific indicators of EHS.

Argument 4

The symptoms are caused by other environmental factors and there may be several factors at work (multifactoral).

Levallois stated that everyday exposure to chemicals and dental amalgam can trigger EHS. This much is known. Many electrosensitive individuals have already been 'weakened' by exposure to pesticides, wood-preservatives, solvents, etc. Low frequency pulsed HF radiation is, for many, the straw that breaks the camel's back.

One gets to know one's body over the years. Many patients, sensing the changes in their bodies, know what causes these changes and can put them down to specific causes. One becomes one's own expert. Yet when people who are electrosensitive or have allergies report their experiences, the experts largely disregard them. Included among the latter would be Eduard David from the private University at Witten-Herdecke, which has strong industry ties.

Of course a patient can suffer from both EHS and multiple chemical sensitivity (MCS). Thus a person may be made sick by several causes, being assaulted from different sides, if you will. Now, someone guilty of bodily assault is answerable in our courts of law – he/she cannot hide behind the defence that he was one of many other perpetrators who joined in the brutality and hit the victim. However, this principle does not apply to the perpetrators of MCS and EHS.

Yet at the end of the day it is immaterial whether the suffering is due to physical violence or to electrosmog. In both cases we are talking about bodily injury, even if the phone companies reject the notion, and the courts pander to their views, because they see no scientific proof.

I cannot understand why Anders Ahlbom (Karolinska Institut) keeps his views to himself and instead follows the WHO trend. He was quoted on 22.10.2004 in the online RP Internet magazine as saying: 'We are now convinced of the significant risk of cell-phone use and expect this to be confirmed by other research groups. Cell-phone use seems to be more dangerous than previously thought. If you use a cell-phone over a period of years, you increase your risk of a brain tumour. The tumour, though benign, damages your hearing.' And to the magazine Nature: 'We were surprised by the results, but they are quite clear.' Ahlbom and his colleagues surveyed 150 acoustic neuroma (tumour) patients and 600 healthy people about their cell-phone habits. Those who used their cell-phone regularly for many than ten years had their risk factor of getting this type of tumour doubled.

At Prague, Ahlbom emphasised however: EHS symptoms are unspecific and have a multifactoral background. The same symptoms need not have the same causes. His

very own studies meant nothing to him. Why did he do them then? Just for the money?

Argument 5

Electrosensitivity is a mental illness.

Two experts proposed that electrosensitivity should be renamed 'electrophobia'. It was agreed that the 'mental' argument could be used, which is a favourite diagnosis offered to sufferers from electrosensitivity, MCS and allergies. If one cannot or does not want to explain certain illnesses, then the 'psyche' is the good old standby. Dr Herman Staudenmayer, Colorado, USA spoke about the Idiopathic Environmental Intolerance (IEI), an environmentally-determined intolerance having no known causes. Whoever uses such a description gives away his standpoint straight away. The term was first used at another WHO workshop (in Berlin) where German government officials were present. The idea was to use this term instead of the term multiple chemical sensitivity – the latter being too suggestive for the chemical industry of the latter's culpability. When people speak of IEI, they normally mean psychological and psychosomatic causes. In this regard Eugene Lyskov, Umea, Sweden, sees psychosomatic effects due to changes in stress levels and the consequent hyperactivity of the vegetative nervous system.

'EHS is a mental illness' theory was supported by:

1. All the experts from the National Reference Laboratory for Non-Ionising Radiation in Prague, Václav Krejci and Ludek Pekarek and Lukas Jelinek.
2. Helena Hillert, Karolinska Institut, Stockholm. Notorious to electrosensitivity sufferers for her view that electrosensitivity can be cured by behavioural psychology (Cognitive Behavioural Therapy: CBT).
3. Eduard David, who even proposes that EHS symptoms are caused by schizophrenic structures and by the influence of television.
4. Strong wording came from the Czech Professor for biophysics, Mojmir Petran. If a psychiatrist cannot help an electrosensitivity patient, then he should get out of the profession. He should also go back to stone-age living.

One did not have to be a clairvoyant to see even before the workshop took place, that most of the experts would agree that electrosensitivity sufferers are mentally sick!

Argument 6

The results are contradictory and more research must be done.

This stock argument crops up at every meeting on the subject of cellular telephony. It often serves the purpose of procrastination. There are a huge number of studies about

electromagnetic radiation (an Internet source puts the figure at 20,000), several hundred of which indicate that cellular phone radiation can be detrimental to health. Repacholi is one of those who call for more research to close the scientific gaps. So we are led to believe at least ...

Ahlbom said that there have been very few epidemiological studies, a fact which surprises him, in view of the considerable interest in EHS. Only two studies concerned transmitters, three concerned mobile phones. In any case one cannot conclude anything from epidemiological studies, he explained. Whilst certain individuals are convinced that they suffer from EMF, he saw no scientific necessity to cater to their demands. Until now, any link between EMF and EHS had not been seriously tested, he said.

Argument 7

Many studies show that no health problems are caused by mobile phones.

These studies were nearly all made on non-pulsed radiation. None of them were long-term studies. EHS symptoms arise after a long time, frequently. Only very few electrosensitive individuals can determine during tests whether the radiation is on or off.

Argument 8

Any conclusions from the results of animal experiments cannot be applied to humans.

Jan Bures, of the Physiological Institute in Prague reported on studies of magnetic field stimulations of the human brain on some ten thousands of subjects, showing no biological effects, apart from some minor effects (?). This was a short-term study – for good reasons (?). Although long-term studies on animals did produce effects, Bures did not consider an EMF-hypersensitivity in humans to be likely.

The nicest example is the well-known double-blind study by Michael Repacholi. It was rapidly discredited when the results did not suit the lobby, in particular Australian cellphone company Telstra. Accordingly, Repacholi himself changed his views overnight on the meaning of the results of the 18-month study. Amongst the reasons was the fact that animal experiments cannot be transferred to humans. A good result in that we can caution rodents not to use cell-phones.

‘Pharmaceutical products are always based on animal tests. In that case shouldn’t the pharmaceutical industry withdraw its products from the market now?’ (Dieter Kugler, Institut für gesundes Leben und Wohnen, Bad Heilbrunn, Germany.)

Argument 9

This is a one-off study which has not been repeated so it is not valid.

This argument cropped up many times. Generally money is not available to repeat studies with exactly the same set-up and conditions. 'You will never find a single scientist to repeat a study in exactly the same way. Such a study would not be publishable if it gave the same results as the first time. That is the reason why small modifications are usually made', according to von Klitzing.

Argument 10

Electrosensitivity individuals have to be taken seriously. They have to be helped.

Remarks to this effect were frequently to be heard at the workshop. However, they are not meant seriously. The sufferers are in fact seen as opponents, and treated accordingly. Help in the form of advice is offered – by those medical practitioners who owe their living to the sick. The advice being that electrosensitivity sufferers should go to the psychiatrist.

There are more arguments.

Even with these unfair conditions, we should not deceive ourselves – it's not about finding the truth anyway.

- Studies are only accepted when they appear in the relevant scientific journals. But a study which questions the established results might well be rejected by these journals.
- Cellular phone operators secure the publishing rights to studies they commission, giving them the right to prevent publication.
- Studies are argued to be only relevant if they have been carried out by an interdisciplinary team.
- Studies can give statistical links but not show causal links.
- Results are claimed to be non-reproducible or to have been incorrectly interpreted. A flaw can always be found – if not then one can always be added.

What I do find shocking at these events dominated by the cell-phone operators are the personal stories told by seriously ill electrosensitivity sufferers which are summarily dealt with, all the while maintaining 'political correctness'. Generally, that is what is expected and the sufferers return home, depressed. Yet if electrosensitive people are to be invited, one should enter into a serious dialogue with them. Just having them there and a few statements and posters as a fig leaf is not enough.

Two contributions from more responsible science.

Olle Johansson, Professor of Experimental Dermatology at the Karolinska Institutet in Stockholm presented an impressive long-term study. He reported physical damage to human skin due to electromagnetic influences at mains, RF and microwave frequencies, producing interesting pictures. Of course an 'expert' contorted that nerves would always look different anyway. As well as Johansson, Christopher Muller from Zurich showed that EHS is not just triggered by purely mental conditions or placebo effects.

It's not just about cellular phone radiation.

One could speculate that the arguments listed above would not exist, if it were not for the massive threats supporting them, with claims for compensation and any number of well-paid lawyers, and as everyone knows, cellular phones and their consequences are blessed from above as being for the common good. The mass-media itself, dependent on income from advertising, generally goes soft on the industry. No-one thought about the possible consequences, or whether the cell-phone industry will go down the same road as the tobacco industry. This was not necessary anyway – since the predominant view was that everything stays as it is. The probability that anyone will be made to behave responsibly is minimal too. The causal links will always be missing.

The earth as an organism.

The stakes are much higher. Much is spoken about pollution of the land and water, but little is done about it. Now we are adding electrosmog to the atmospheric pollution due to industry and transport.

The cellular phone system is just one risk-product. More are continually coming onto the market, threatening the delicate balance of nature. We must not forget that life arose with an incredibly fine 'tuning' of conditions, and only exists thanks to continuing equilibrium. Everything in nature is a building block of this living system. Yet we really neglect this in our culture.

James Lovelock spoke of the planet Earth as 'Gaia', a living organism. And 'everything we do to the Earth, we do to ourselves', according to the Indian philosopher Shiva. Knowing that one is inflicting damage onto other life-forms with one's work and profits is enough to make one sick. A ray of hope is that a brave environmental activist has just won the Nobel prize for peace: Wangari Maathai, who in her home country Kenya won over thousands of women to her cause to plant 30,000 trees. The benefits to the economy are sustainable from such actions.

On the individual level the tenet should be: The risk is mine, as much as possible anyway, and it is intolerable that others make a profit at the expense of health and quality of life. That must be so, regardless of whether they are acting within the law.

Jobs cannot be an argument. There is enough work in this world which is at once useful, socially beneficial, and can preserve creation.

I must close here, otherwise I shall have to start on another essay...

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