



Electrosensitivity: A First Person Perspective

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Part of a presentation delivered in the context of Lakehead University's research and innovation week, February 22, 2010.

You'll notice from my credentials, that although I am a researcher and academic, I am not trained in scientific research. I would not be here this evening if I had not, one day in 2001, had an odd experience. It was a simple and unremarkable experience, and yet one that was a harbinger of many challenges to come. At the time, I was writing my doctoral dissertation on the politics of representation of ethnicity in contemporary French theatre. I was spending a lot of time on my computer, a laptop. A few months into an intense writing phase, I noticed that my left hand would get sore by the end of the day. Writer's hand, repetitive strain injury, I thought. Before long however, my left hand was sore earlier and earlier in the day. Why my left hand, I wondered? And why did the soreness go away approximately an hour after I finished typing. And why did that same hand not bother me when I was playing guitar to relax in the evening?

Pretty soon, I couldn't type at all on the laptop. And I had an inkling that it may have had something to do with the computer itself, but I wasn't sure. Around the same time I noticed a slight pain in my chest when I was in front of one of those older CRT or cathode ray tube televisions. A few months after I noticed this, I could only watch television for about an hour before in my chest made me have to stop. By this time I had installed an external keyboard to the laptop with a USB cable, so I was no longer typing directly over the body of the laptop. After I made this adjustment the pain was entirely gone in my previously sore hand when typing. It became clear that there was some correlation between my increasing inability to watch television, the pain that occurred when I was typing with a laptop, and the whistling in my ear that I started experiencing while speaking on a portable phone. But what was the correlation, the connection between all these experiences?

I moved to Montreal to teach at Concordia University. I found myself unable to sleep very well in my new apartment. I figured it was just an adjustment to a new environment. I purchased a used computer: one of those Apple desktops with a CRT screen in it. On the third day in my new apartment, I spent eight hours working on this computer. Suddenly, it was as if some kind of switch had flipped in me. I was, seemingly overnight, now unable to tolerate any form of electromagnetic emission without experiencing serious discomfort or pain: I could no longer use a portable phone; I didn't have a cell

phone of my own but could no longer tolerate being in a room when a phone was on; the subway made me dizzy and nauseous; I couldn't stand near a toaster, blender, or washing machine; walking under even small power lines that ran along residential streets became an exercise in headaches and rapidly onset dizziness; my extremities became numb when I approached any kind of electrical device, or one that emitted any communications signal.

What on earth was going on?

I contacted some kind individuals in Ottawa who had a website discussing electrical sensitivity, and also ran a business selling meters to measure various forms of electromagnetic emissions. I purchased a Gauss meter to measure electromagnetic fields. I discovered a 120 mG field over the left-hand side of the laptop I had been using, but only a 5 mG field over the right hand side of that same laptop. 120mG: sore hand; 5mG hand not sore. An aha moment. The new apartment I was living in had a 25 mG electromagnetic field in it. I began doing research and discovered that more than 0.6 mG of an electromagnetic field was bioactive: it generated some kind of effect on living systems. 0.6 mG bioactive, 25 mG ambient in the apartment, 120 mG over the computer. Another Aha moment. Did these high levels have something to do with the transformer on the service pole outside my front window? Was this having an impact on my sleep and somehow contributing to the generalized pain and discomfort I was experiencing on an increasing basis? The landlord told me one day about the apartment's previous occupants, a single mother and her child. The child, 3 years old, who had lived in the apartment since she was born, had died of leukemia 6 months previously. The mother had left Montreal to return to France to live with her parents. Was this perhaps connected as well?

The early stages of severe electrical sensitivity are marked by many of these kinds of questions. A lot of consideration is also given to how you should choose to communicate the reality of your experience to those around you: your family, your physician, your employer. Although I never doubted my own lucidity or sanity in the face of my experience, I did not for a second assume that certain individuals wouldn't make quick assumptions about my mental acuity, judge a propensity for paranoia, for hypochondria, etc.

For example, a quick websearch to the world health Organization's fact-sheet on Electrosensitivity reveals that legitimate sensitivity to electromagnetic fields does not exist. Reported sensitivity by individuals is described as 'reputed sensitivity,' and *real* causes for people's problems—according to the WHO—may include flickers from fluorescent lights affecting eyesight, poor ergonomic design of computer workspaces, air quality, or general stress. In a revealing paragraph the WHO fact sheet asserts that: "There are also some indications that these symptoms may be due to pre-existing psychiatric conditions as well as stress reactions as a result of worrying about EMF health effects, rather than the EMF exposure itself." In an interesting twist, despite their belief that there is no correlation between EMFs and people's 'reputed sensitivity', and despite the fact that they assert that it is not a real syndrome, the WHO nonetheless maintains the use of the term 'Electro hypersensitivity' to describe the "phenomenon" of people

assuming that they are being affected by fields. Why deny the syndrome, but continue to use the name attributed by people to their genuine experience?

If one follows the logical implications of the argument on the factsheet, the continued use of the term 'electrical hypersensitivity' allows the WHO to perform two rhetorical operations simultaneously. On the one hand, by designating certain people as electro-hypersensitive, the WHO protects itself from protest that the organization is not acknowledging the reality of the 'phenomenon'. On the other hand, the term electro-hypersensitive, used by people worldwide attempting to draw attention to the reality of their suffering, is remobilized by the WHO to essentially indicate individuals who are at best very wrong, and at worst, in need of psychiatric intervention. The term electrohypersensitive becomes a logical trap of semantic exclusion: according to the WHO, even if you call yourself electrohypersensitive, identify as one, then you're clearly 'sick in the head.'

I'll leave it to active researchers in the field such as Henry and Magda to discuss the design flaws in various studies used to support the WHO's assertions. Think though for example of the recent and infamous Essex study, in which a number of participants became so ill from repeated provocation exposures from electromagnetic emissions that they quit the study. These people were not counted in the final tabulation of results. What is particularly evident, however, is that the WHO's assertions carry a lot of weight internationally. They are at the top of a medical and regulatory foodchain that is consulted by provincial healthcare policymakers who write policy that is in turn consulted by employers, insurers and physicians when deciding how to manage ill individuals reporting the kind of symptomology experienced by the electrically sensitive.

This general state of affairs results, in Canada at least, in a person needing to be particularly careful about how they approach disclosing the reality of their condition to those around them. Consider for example the case of a young man in his late 20s from Milton, Ontario, a young man with an MBA from Sheridan who was 3rd in sales nationally for a major international food services company. He became electrically sensitive from exposure to a new hand-held wireless stocking device his employers required him to carry from store to store for the purposes of measuring inventory. Complaining of headaches and pain that he attributed to the new technology, his physician referred him to a psychiatrist and, not knowing any better, he went. The psychiatrist declared mentally incompetent. He has been rejected by his family as a hypochondriac, and can no longer work. He ran out of money and lived on the streets and in a shelter for six months. The only way he is currently eligible for socially assisted housing is if he can demonstrate to his social worker that he is taking the daily doses of multiple anti-psychotics prescribed to him by the psychiatrist. Needless to say he has become highly skilled at hiding pills under his tongue, then spitting them out when no one is looking.

Consider the case of the woman from Welland, Ontario who was initially rendered electro hypersensitive sensitive from working in a call centre. She was hospitalized for the pain she was experiencing in the enteric nervous system in her stomach that flared up

when a new cell tower was installed next to her house. The doctors would not acquiesce to her requests for removal of a wireless node outside her hospital room. They assumed she was delusional to think that there could be a relationship between the wireless emissions and her complaint. Instead, they simply plied her with more and stronger painkillers. The pain continued, and she finally died in hospital from a morphine overdose. Official cause of death: complications associated with acute liver failure.

Consider the family in Simcoe, Ontario who had to sell their million dollar century home, a family heirloom, when the husband, an accountant, started losing consciousness shortly after six cell antennae were placed on a water tower adjacent to their property. These people have become pariahs in their community. The man has been ridiculed in the press and quite literally spat on in the street for having brought his concern to the town council. It seems he also had the audacity to suggest that the new antennae were perhaps related to the wave of 12 new cancers that struck the 14 houses nearest the antenna in the two years following their installation.

These are some of the dozens if not hundreds of people I've been in contact with over the past eight years: those unable to live in their homes, attend school, go to work, be in public: a whole hidden tribe of nomads forced into itinerancy, isolation, and frequently, extreme poverty. These refugees are forced into peripatetic and difficult journeys to find low-exposure zones, to seek out a doctor who understands, and to continually resuscitate the hope for some kind of eventual recovery.

Electrical sensitivity manifests differently for different individuals, and is best understood as being on a continuum of severity, with the cases I've just described being on the worse end of the scale. But how many more Canadians are experiencing less extreme immediate symptoms from general electrical sensitivity, given that the accepted safe exposure levels are so far above what actually generates biological effects? Ear aches from the cell phone, unexplained dizziness, blood sugar imbalances, hyperactivity, neuralgia, unease, headaches, nausea, lack of coordination while driving, the gradual development of degenerative disease. As Magda has emphasized, rough calculations suggest that significant proportions of the population are, in one way or another, electrically sensitive.

What is preventing Health Canada and other national and international regulatory bodies from recognizing the reality of the situation? It turns out the answer is a particularly predictable one: follow the money trail.

Canadian activists Sharon and Denis Noble have very closely examined the funding sources behind the scientific literature that Health Canada depends upon to justify its current standards. In a letter to the Auditor General, the Nobles trace how in case after case the authors of the scientific literature that Health Canada draw upon are in situations of conflict of interest. One author of a study is a director of a research centre founded by monies from the Canadian Wireless Telecommunications Association, a cell phone industry lobby group. This author is also a director of the Canadian branch of the Interphone study. Canada is the only one of the 13 participating countries whose project is funded by the wireless association. Another author was the editor of Radiation

Research: only one positive paper on microwave genotoxicity has appeared in *Radiation Research*.... 80% of the papers that deny biological and health affects (17 out of 21) published in *Radiation Research* were paid for by either the industry or the U.S. Air Force. And it goes on: studies funded by industry and the military consistently showing no effects to electromagnetic pollution to human health. Health Canada responds to the Noble's charges of conflict of interest by affirming: "The fact that some studies are either directly or indirectly funded, in whole or in part, from the wireless industry or any other sources does not constitute a valid reason to dismiss these research findings outright." Unfortunately for them, peer reviewed statistical analysis has demonstrated that funding sources have a statistically significant effect on the positive or negative outcome of studies on the biological effects of radiofrequency. Health Canada continues to support the use of industry-funded research, arguing that the number of studies which show no biological harm outnumber those showing harm. Therefore, using the "weight of evidence" argument based on faulty research, Health Canada continues the collusion that marks the current dominant discourse on the subject. In a private meeting with Beth Pieterse, the Director General of the Research and Radiation Directorate of Health Canada, she acknowledged to me the oddity of the apparently extreme divergence of opinion between the two opposing scientific camps. Ms Pieterse had no particular response to this, and despite entreaties, Health Canada has not been willing to invest in a dialogue between opposing scientific camps.

This information regarding conflict of interest has been circulated widely to journalists and yet very little attention is paid to this pervasive health issue in the media (and this despite the fact that I know several cameramen who attribute the cancer in their brains or face to the electromagnetic fields emitted by the cameras on their shoulder). Does this have anything to do with the fact that most media outlets are either owned and run by wireless providers, or depend heavily on their sponsorship and advertising? Which journalists and media outlets are asking these questions? Have we all become so inured to industry fudging of science in the asbestos, cigarette and thalidomide cases that the fearful media are simply going to watch this happen, like a car crash in slow motion?

And yet there is some hope for change internationally:

The legal systems in various countries have begun awarding damages to individuals injured by electromagnetic pollution, regardless of the assertions of governments regarding the alleged scientific impossibility of these kinds of injury. The Alaskan Supreme Court awarded money to an individual who was injured by radiofrequency levels below the so-called safe threshold.

Lloyds of London stopped insuring most wireless and cell companies in the late 1990s when the company began to take the 50 years of research on the subject seriously. This suggests that at some point in the future, the litigation costs will become such a liability that investors will flee unsafe technologies. This kind of economic dynamic is what finally brought to light awareness of the perils of smoking. Various class action suits against cell phone providers are working their way through the courts in the United States and elsewhere.

Canadian Human Rights Commission has published a report on its website declaring environmental sensitivity to be a disability on par with sightlessness, being constrained to a wheelchair, or any other more recognized form of disability. Specific mention is made of electrical sensitivity. If they have the time and the money above and beyond simple survival, perhaps electrically hypersensitive individuals can claim human rights abuse when they are unwilling consigned to a psych ward, or left fending for food in the streets or in the woods.

Activist groups are springing up all over the world. The organization that I helped found sends out daily news summaries of research and media reports on the topic, and regularly stages front line intervention and support for Canadian living with electrical sensitivity.

Above everything, an important aspect of the experience is that the human body wants to be well. It is simply a question of removing offended incidents, supporting the immune system and detoxifying the body. My own condition became increasingly worse, to the point where I lived in an unheated camper trailer on a 120 acre woodlot outside of St Catharines for 2 years. At that point I was unable to be anywhere in proximity to wireless, cell signals and just plain old 60 hz. Although I did not miss a day of work through this entire period, although generated enough research to receive tenure and promotion, received a SSHRC grant, won a national playwrighting prize and a major teaching award, I also spent 5 years in continuous pain, numbness, nausea, and brain fog. I was unable to fly, to drive for more than 20 minutes, and was very socially isolated. I would work on my computer with a 20 foot USB extension cable to a keyboard and use a data projector on the other side of the room to shine a screen on the wall in front of me. Email became an exercise in major pain. And yet with a lot of research, the collaboration of an open-minded MD and 2 very good naturopaths I was able to detoxify, support my immune system, and now am significantly better. I spend a lot of time trying to direct other electrosensitive people to the kinds of resources that they can also use to improve their condition and begin living again.

And yet, despite these beginnings of change, much more work has to be done.

First of all, and obviously, levels of electromagnetic pollution have to be reduced to biocompatible levels and different technologies have to be developed. That is a no-brainer.

Only very few places in Canada actually provide anything approximating recognition for electrical sensitivity or acknowledgement that other health complaints may result from exposure. Women's College Hospital in Toronto has an Environmental Health clinic where dozens of people I'm familiar with have gone to be told by the physicians there that they are electrically sensitive. However, when interviewed by the media, these same physicians will under-report the number of individuals they deal with, suggesting instead that they've only seen a handful of cases over the past years. Why this mendacity about the prevalence of the condition? Who benefits from this? Physicians need to be further educated about the risks of electromagnetic exposure, and emergency medical services

have to be provided for those suffering from extreme electrical sensitivity. Many people with electrical sensitivity cannot spend time indoors, let alone go to a doctor's office.

More research needs to be done on the complexifying effects that heavy metals, pesticides, and other pollutants in the human body have on the development of electro hypersensitivity. A majority of Swedish electrohypersensitives affirm that the presence of mercury amalgam fillings contributed to the onset their condition.

For people with electrical hypersensitivity, even convincing the experts onsite sometimes is a challenge. Consider David Carpenter, co-editor of the BioInitiative report and a professor of environmental health sciences and biomedical sciences at the University at Albany, State University of New York, who often warns against the dangers of EMFs. He's quoted in the LA Times from the 15th of February this year as saying that although he believes that EMFs can cause cancer and possibly neurological disorders such as Alzheimer's and Lou Gehrig's disease, he asserts that there's no good evidence that cellphones can cause headaches and other vague complaints: "I'm not sure electrosensitivity is real."

And until these kinds of attitudes change, the amount of unheralded and undiagnosed suffering from this currently misunderstood condition will continue unabated.