Article from future tense
ASU | NEW AMERICA | SLATE

Refugees of the Modern World

The “electrosensitive” are moving to a cellphone-free town. But is their disease real?

By Joseph Stromberg | Posted Friday, April 12, 2013, at 5:30 AM

Nicols Fox moved to the Radio Quiet Zone to escape electromagnetic forces
Courtesy of Christine Fitzpatrick

You can turn on your phone on in Green Bank, W.Va., but you won’t get a trace of a signal. If you hit scan on your car’s radio, it’ll cycle through the dial endlessly, never pausing on a station. This remote mountainous town is inside the U.S. National Radio Quiet Zone, a 13,000–square-mile area where most types of electromagnetic radiation on the radio spectrum (which includes radio and TV broadcasts, Wi-Fi networks, cell signals, Bluetooth, and the signals used by virtually every other wireless device) are banned to minimize disturbance around the National Radio Astronomy Observatory, home to the world’s largest steerable radio telescope.

For most people, this restriction is a nuisance. But a few dozen people have moved to Green Bank (population: 147) specifically because of it. They say they suffer from electromagnetic hypersensitivity, or EHS—a disease not recognized by the scientific community in which these frequencies can trigger acute symptoms like dizziness, nausea, rashes, irregular heartbeat, weakness, and chest pains. Diane Schou came here with her husband in 2007 because radio-frequency exposure anywhere else she went gave her constant headaches. “Life isn’t perfect here. There’s no grocery store, no restaurants, no hospital nearby,” she told me when I visited her house last month. “But here, at least, I'm healthy. I can do things. I'm not in bed with a headache all the time.”

The idea that radio frequencies can cause harm to the human body isn’t entirely absurd. Some research has suggested that long-term exposure to power lines and cellphones is associated with an increased chance of cancer, although most evidence says otherwise. But what these people claim—that exposure to electromagnetic frequencies can immediately cause pain and ill health—is relatively novel, has little medical research to support it, and is treated with deep skepticism by the scientific mainstream.

That hasn’t stopped them from seeking to publicize the dangers of wireless technology. One of the most prominent activists in the field, Arthur Firstenberg, gained notoriety in 2010 for suing his Santa Fe neighbor for the effects of her Wi-Fi network. But he began organizing EHS-sufferers way back in 1996—when digital cellular networks were initially installed across the country—forming the Cellular Phone Task Force and publishing *Microwaving Our Planet*, one of the first books on the topic. In the years since, a fringe movement has grown around the idea, with some 30 support groups worldwide for those affected by radiation. The purported “epidemic” is particularly concentrated in the United Kingdom and Sweden, where surveys have found that 1 to 4 percent of the population believes they’re affected.

Here in the United States, West Virginia’s Radio Quiet Zone has become a gathering place for

the hypersensitive since the mid-2000s, when they first began arriving. Most find out about the area through EHS groups, at conferences, or by reading about it in the handful of news reports published over the last few years. Diane Schou estimates that, so far, 36 people like her have settled in and around the tiny town to escape radiation.

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When you walk in the Schous' two-story brick house, 4 miles up a forested road from the Green Bank post office, the first item you see might be a radiation meter they keep in their living room. She and her husband, Bert, moved here from Cedar Falls, Iowa, because they believe Diane is sensitive to very specific radio frequencies. She first began noticing her sensitivity in 2002, she says, when U.S. Cellular, a wireless provider based in the Midwest, built a tower near their farm. "I was extremely tired, but I couldn't sleep at night," she said. "I got a rash, I had hair loss, my skin was wrinkled, and I just thought it was something I ate, or getting older." After she started getting severe headaches, she heard about EHS from a friend and did some reading online, and eventually came to believe the tower had triggered her latent sensitivity. She went for a consultation at the Mayo Clinic, but doctors refused to consider the possibility, and when she wrote to the FCC complaining about the tower, they simply replied by saying it was safe.

Over the next four years, she repeatedly left the farm to search for a safe place, traveling through Scandinavia (where their son was studying abroad) and logging more than 75,000 miles driving across the United States in their RV. She'd find relatively safe spots but still got pounding headaches and chest pains from a range of triggers: if someone nearby turned on his phone, if she drove past a signal tower, if a neighbor next door used a coffee maker. "It would be like a sledgehammer on top of my head," she said. Initially, only U.S. Cellular phones had harmed her, but eventually, being near any electrical device was a risk. (Virtually all devices that use electricity, even if they don't rely on wireless signals, emit a low level of radiation.)

Then, in 2007, she learned about the Radio Quiet Zone. When she visited, she finally started to feel better. She and Bert sold half of their Iowa farmland and bought the house in West Virginia, unfinished, and have since installed wiring with thick insulation to reduce radiation. (Bert—who gets much milder symptoms of EHS, including tinnitus—still goes back to their farm every summer to conduct corn research.) Over time, living without exposure reduced Diane's sensitivity, and she can now tolerate many devices without pain. The Schous use a landline and an Internet-connected computer (without Wi-Fi). But they still haven't found a refrigerator with low enough radiation emissions, so Diane manually fills an icebox with ice each day. Even now, if she leaves the Radio Quiet Zone, exposure can set her off: "I'll say, 'Oh, I have a headache,' and then someone's cellphone will ring," she said. "This happens time and time again."

The Schous often host EHS-sufferers who want to test out Green Bank. One person who relies on their hospitality is Deborah Cooney, a singer, pianist, and voice coach from San Diego. Her problems began in 2010, she told me, when a smart electricity meter was installed on her house; she believes this triggered her boyfriend's heart issues, led to her own hypersensitivity, and even caused her cat to start panting, pacing, and shaking her paws. Over time, Cooney's symptoms intensified—they included fatigue, numbness, circulation problems, and intense jolts of pain in her heart—and she impulsively moved out one night in October 2011. "I got so sick that I felt my life was in serious jeopardy, and if I didn't leave that minute, I didn't know if I'd survive," she said. She drove cross-country to the one friend she had who didn't get any cell service (he lived elsewhere in West Virginia) and learned about the Radio Quiet Zone soon after she arrived.

Currently, she lives without running water or electricity in a simple one-room cabin the Schous built at the foot of their driveway, because simply sleeping in a wired building makes her sick. During the day, she shares a nearby apartment with another hypersensitive person, where she cooks, bathes, and occasionally uses a computer. Because she has trouble finding work, she's having money problems. Recently, she traveled to Texas and Florida to perform, sleeping in her car every night of the monthlong trip because of the devices and Wi-Fi networks in hotel rooms. "This is a tough place to live," she says. "I really don't know how I'm going to be able to support myself."

Some residents of Green Bank, along with the nearby town of Marlinton—also in the Radio Quiet Zone—apparently aren't thrilled about this influx.* According to Schou, many locals are reluctant to rent housing to people with EHS, perhaps a result of the fact that in a remote area with few job opportunities, any new arrivals only heighten competition—and maybe because they're likely to ask for special treatment. Schou told me that since she requested to have the fluorescent lights shut off at the community center, she's faced intense discrimination: Packages have been stolen from her porch, and she once found a dead groundhog in her mailbox. "I've been told, 'We don't want your kind of people here,' " she said. Cooney was banned from the radio observatory for bringing up radiation issues at a town meeting held there and says her tires have been punctured in the night more than once. (I tried to talk to some locals about their new neighbors—but it's hard to do a man-on-the-street interview in an area with so few streets or proverbial men.)

Cooney, like many with EHS, is particularly angry about the rollout of smart meters by electric utilities in many parts of the country. In some places, the backlash has been fierce, in part because of the belief that their wireless signals (used to monitor electricity consumption in real time) are dangerous. In Maine, consumers successfully demanded opt-outs for those who don't want smart meters installed, while one utility in Hawaii switched to an opt-in

program. But Cooney says this doesn't go far enough: "Those options doesn't let me opt out of the smart meter on my neighbor's house, 10 feet outside my door, or the bank of 100 smart meters on the apartment building behind by house. And radiation doesn't respect property rights." She's currently suing California's Public Utilities Commission for $120 million in damages and wants a decision that bans smart meters entirely. Cooney also believes the telecommunications industry has been actively concealing the dangers of radio frequencies for some time. "They just want to keep profits high," she said. "They want to keep injuring people because they don't want to pay the money it would take to correct the problem."

It's clear that Cooney, Schou, and the others are suffering. But the question remains: What exactly is "the problem"?

Even a skeptical thinker can be briefly entranced by the notion that researchers may have simply failed, so far, to uncover a real disease—as Carl Sagan was fond of saying, "the absence of evidence is not evidence of absence." It's especially tempting when talking to someone like Nicols Fox, who reported for the *Economist* on food safety issues for more than a decade and wrote three books before moving to the nearby town of Renick, W.V., in 2008 in an attempt to control her EHS. A science-minded person who probably would have once scoffed at the idea of hypersensitivity, she gradually came to believe that her shooting pains, unpredictably plunging heart rates, and difficulty speaking were a result of years in front of a computer. "I got more and more sensitive, and eventually there was a day when my body just screamed when I touched the keyboard," she said.

Now, she lives simply in a little two-bedroom house on a forested ridge and does her writing on a typewriter (she's working on a novel), mirroring the Luddite tradition she once wrote a book about. At night, she wears a shirt woven with silver fibers to reduce her radio frequency exposure, and though her house has electricity, she shuts it off and uses gas lamps whenever possible. During our conversation, her voice would occasionally get cracked and raspy if I got too close with my audio recorder. In the five years since she's moved to the Radio Quiet Zone, she hasn't left once.

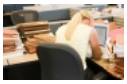
A barn near Green Bank, W.Va., in the National Radio Quiet Zone
Courtesy of Christine Fitzpatrick

Fox's position on the dangers of radio frequency seems to make sense at first glance. "It's completely artificial, we've invented it, and it's never been on this planet before, so nothing—not animals or humans—is adapted to it," she told me. Of course, this kind of thinking (that a natural state is inherently better than an unnatural one) is a logical fallacy, and can't replace actual evidence in proving the existence of EHS. Nevertheless, Fox and others who believe they suffer from it often compare wireless devices to tobacco—a dangerous addiction that many of us sign up for before fully understanding the risks.

Unlike many people who believe they suffer from EHS, Fox doesn't seem particularly worried about proving it. "I don't care if there's research or not," she said. "I've done my research. Meaning, I've sat in the doctor's office and seen my heart range drop to 36 beats per minute when they turn the equipment on." As she points out, there's no reason why she'd turn her life upside-down—abandoning her career and selling her house on Maine's Mount Desert Island—to fake a disease.

But "faking it" isn't the right way to discuss EHS—both because it alienates sufferers by making them defensive and because, more importantly, that doesn't seem to be the case. According to research, these people's symptoms may be real. But—and this is the important part—radiation isn't to blame. A 2010 meta-analysis of 46 studies concluded that "repeated experiments have been unable to replicate this phenomenon under controlled conditions," while the World Health Organization simply says that "well controlled and conducted double-blind studies have shown that symptoms were not correlated with EMF exposure."

The primary way of testing is a provocation study, in which a purported EHS-sufferer is exposed to either an electromagnetic field or a sham field and asked to identify which is



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which. James Rubin, a psychologist at King's College London who studies psychogenic illnesses, has analyzed the literature on provocation studies and conducted some at his own lab. His most recent meta-analysis—which covered 1,175 participants in 46 studies—found no rigorous, replicable experiment in which radio frequencies were identified at rates greater than chance. "It is definitely the case that some people experience symptoms that they attribute to electromagnetic frequencies," he told me. "But is it really these frequencies causing the symptoms? At the moment, we can say that there simply isn't any robust evidence to support that."

Some EHS-sufferers criticize provocation studies, saying that holding them in a lab means spillover radiation from equipment and nearby buildings even in the sham condition. They also argue that the experiments don't necessarily use the correct radiation frequency. ("The scientist is pretending to be God, knowing what frequency that person will react to," Diane Schou said to me.) But Rubin points out that many provocation studies start with an unblinded stage, where the participants are truthfully told whether the electromagnetic field is on. "They almost always report symptoms when they know it is on, and not when they know it is off," Rubin said. "In the second stage, when the experiment is repeated double-blind, they report symptoms to the same extent in both conditions." When the participants know whether the field is on, in other words, contaminant radiation and frequency specificity suddenly aren't such big problems.

As such, the best predictor for whether a hypersensitive person will experience symptoms isn't the presence of radio frequency—it's the *belief* that a device is turned on nearby. An elegant demonstration of this on a much larger scale took place in 2010, when residents of the town of Fourways, South Africa, successfully petitioned for a cell signal tower to be taken down because of the sickness caused by its radiation—even though it was later revealed that it hadn't been switched on during the time of their complaints.

The idea of EHS is also undermined by our basic understanding of electromagnetic radiation. The full spectrum of electromagnetic radiation is divided into ionizing and non-ionizing frequencies. The former category, which includes X-rays and nuclear fallout, is energetic enough to tear electrons off our body's atoms and cause radiation sickness; the latter isn't. While the frequencies in this latter group (which includes visible light, cell signals, Wi-Fi, and the radiation from power lines) can burn biological tissue at extremely high intensities, our devices operate at levels well below anything considered harmful. The alluring idea that life hasn't evolved to withstand non-ionizing radiation becomes silly when you consider that the main source of it on planet Earth is sunlight.

As Fox and others note, there is research supporting the idea that EHS is real—but scientists largely dismiss it as pseudoscience. Most well-known is the *BioInitiative Report* (a non–peer-reviewed publication authored by 29 self-described "scientists, researchers and public health policy professionals"), which has been widely criticized for selectively using favorable studies and data. The European Commission noted that, contrary to its claims, the report was a post facto assembly of many different papers and studies, not the consensus of a working group, and that it often ignored the conclusions of the researchers themselves in interpreting the data. A recent article in the *Guardian* cited a 2011 study by a team of LSU neurologists that purported to find that electromagnetic frequencies caused headaches and muscle twitching, but the study involved only one subject—and even she wasn't able to identify if a field was turned on at rates better than chance.

Given the data, the long-hidden danger of tobacco isn't an apt parallel for the supposed harm of radio frequency radiation. But other episodes from history are. Technology historian Genevieve Bell says that in the early days of rail travel, experts warned that if a woman traveled faster than 50 miles per hour, her uterus could suddenly fly out of her body. Bell has charged the many instances throughout history in which new technologies triggered unfounded, irrational "moral panics." She theorizes that innovations which change our relationship to time, space, and other people are the most likely to incite fear. It's hard to imagine technologies that hit all three of these all comprehensively as smartphones and the mobile Web.

You could also view EHS as a mass psychogenic illness, in which very real symptoms arise from a socially contagious belief in a nonexistent disease. In 1962, for example, after a June bug infestation at the Montana Mills textile factory in North Carolina, workers began getting sick: They broke out in rashes, experienced nausea, and in some cases fainted and required hospitalization. A total of 62 workers exhibited symptoms, but doctors and entomologists couldn't find any explanation. In a seminal 1968 study, a pair of psychologists who had interviewed the staff concluded that their physical symptoms had been triggered by the belief that they were at risk, reinforced by local news stories about the infestation and resulting contagion. Interestingly, those with close friends who'd gotten sick first were more likely to develop symptoms, as were those more stressed and dissatisfied with their jobs. Other episodes attributed to mass psychogenic illness include a supposed post-9/11 chemical attack at a Maryland Metro station (in which window cleaner somehow caused 35 people to develop headaches, nausea, and sore throats), and last year's mysterious outbreak of twitching among female high school students in Le Roy, New York.

As *The New Yorker* recently pointed out in a blog post, EHS, along with these types of episodes, hint at the bizarre power of the nocebo effect: the flip-side of the placebo effect, in which inert substances or the suggestion of harm brings about real physical symptoms. In many studies of the nocebo effect, simply explaining to patients that a pill might trigger side effects has been enough to cause everything from back pain to erectile dysfunction. "If you believe that a substance, compound, or phenomena harms you, and you start experiencing

symptoms, there's confirmation for your belief right there, and then it's a self-fulfilling prophecy," Brian Dunning, a prominent skeptic who hosts the *Skeptoid podcast* and frequently takes on pseudoscientific claims, told me. "You see that your phone has a signal or that there's a Wi-Fi router in the room, it further increases your stress level, and you have very real and very distressing physical symptoms. Once you have this confirming experience, it becomes really difficult to sit there and be told otherwise."

Our brains' expectations, it turns out, have a surprisingly potent effect on the functioning of our bodies. If the people who moved to Green Bank truly suffer from piercing headaches, nausea, and dizziness when they are around wireless signals, the nocebo effect (and previous instances of mass psychogenic diseases) is as good an explanation of anything we have so far.

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But what does this mean for people who believe they suffer from EHS? Probably not much. Science might say that they can't possibly be allergic to cellular networks, but as long as they are certain they are, the Radio Quiet Zone is the one place they can get relief.

So, for now, most of them plan to stay in Green Bank, and more arrive all the time. In just the week before I visited, Bert Schou told me, they'd gotten calls from people in New Mexico, Oklahoma, and Virginia asking whether they could come stay. Diane wants to raise money to build a resource center for the hypersensitive nearby, where they can be medically evaluated in a radiation-free setting and stay overnight when necessary.

Above all, they want to spread the message that electromagnetic radiation is dangerous—and that the only solution is getting away from this invisible form of pollution. "You might find a friend or someone in your workplace who's not feeling well," Bert said to me as I stood in his driveway, getting ready to head out before it got dark. "Bring them here, and they might feel better, too."

This article arises from Future Tense, a collaboration among Arizona State University, the New America Foundation, and ***Slate****. Future Tense explores the ways emerging technologies affect society, policy, and culture. To read more, visit the* Future Tense blog *and the* Future Tense home page*. You can also* follow us on Twitter*.*

Correction, April 12, 2013: *This article originally misspelled the name of the town of Marlinton, W.Va.*

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What are these links?

Joseph Stromberg writes about science, technology, and the environment for Smithsonian magazine and Smithsonian.com. Follow him @JosephStromberg.

Live

Kevin Hill
Has this town built a shield defense against the 0bummer Orbital Mind Control Lasers yet?
1 Hour Ago from slate.com · Reply

Kevin Hill
Whomever moves to this town to set up the bulk sale of tinfoil is going to make millions!!
1 Hour Ago from slate.com · Reply

James Randi
Just what is the problem with establishing whether these people actually can or cannot detect an electromagnetic field? I see that my colleague Brian Dunning has appropriately contributed to this tiresome brouhaha, but no one has performed a simple, definitive, wide-range, double-blind, test of whether anyone - of any age, ethnic origin, gender, or political attitude - really exhibits EHS.

Such a test is not at all difficult, nor is it expensive to carry out! I simply cannot understand why it has not been done so that we can get on with much more important matters!

The James Randi Educational Foundation stands ready and able to conduct such a test. Now, we don't know whether or not EHS exists, but we'd like to find out. Let's do it, shall we? No, the JREF's million-dollar prize will not be offered in this case, because though EHS claim appears to be - by definition - a paranormal one, no one has yet shown that EHS does not exist.

Any takers...? I expect to hear the usual chorus of cricket sounds as a response... Prove me wrong.

James Randi.
2 Hours Ago from slate.com · Reply

mwilk
Isn't the real Randi going to be upset by your phony post?? The question is not whether individuals can detect an EMF, it's whether they suffer health effects and there has been lot's of research done, all of which has been negative or inconclusive, at least the very low levels these "electrosensitive" individuals are claiming.
2 Hours Ago from slate.com · Reply

Hetneo
You are wrong on one tinny thing, study has been done on this subject, actually several were. Just one of them:

http://www.ncbi.nlm.nih.gov/pubmed/15784787
1 Hour Ago from slate.com · Reply

mwilk
There are a lot of references to studies regarding exposures to radio frequency radiation on OSHA's website as well. I'm sure the real Randi would be well aware of the existence of such information, if not the contents.
29 Minutes Ago from slate.com · Reply

Write reply here...

johnnie
There are two key factors in this discussion:
(1) the difference between (hyper) sensitivity to a 2B cancer agent, and a psychological condition called EMF Neurosis - to muddle the two, as do many of the reported views here, shows a misunderstanding of cellular bioelectromagnetism;
(2) the non-linear nature of electro-magnetic biological reactions, confirmed by professors McCarty and Marino.

If human cells were not sensitive to low-level electro-magnetic exposure, then many modern medical devices would not work, and many military non-lethal weapons would not be worth developing.
3 Hours Ago from slate.com · Reply

Hetneo
There's 3rd factor you are disregarding, certain types of electromagnetic radiation do cause effects in humans, but those frequencies which are proven to cause no effects whatsoever cannot cause any effect.
58 Minutes Ago from slate.com · Reply

Write reply here...

JudyS
This article doesn't discuss the possibility that the EHS-sufferers are sick from *something*, just not from EHS. There are many chronic illnesses with fluctuating symptoms, and it can be extremely hard to tell what is causing the symptoms to get better or worse. The people in the article could have some serious physical illness and then get a placebo effect from living in Green Bank as well as nocebo effects from being around electromagnetic devices. (The actual physical illness could vary between people -- some of the people might have lupus, others might

have anemia, etc.)

Plus, as Jed Rothwell notes below, maybe some of the EHS-sufferers were originally sick from a real environmental problem at their former homes. (This could be lead or arsenic in their water, mold in their walls, any number of things. Again, different people might be sick from different things.) Moving to a new home in Green Bank might make them feel better because they are no longer exposed to the toxin that was making them sick in their previous home. In this case, moving to Green Bank would be a true treatment, not just a placebo. (Getting sicker when they are around electromagnetic devices would still be a nocebo effect, though.)

By the way, fluorescent lights are a special case. There are well-documented symptoms caused by fluorescent lights, although the problem is generally caused by light in the visible spectrum, not other parts of the electromagnetic spectrum. The older lights with magnetic ballasts are particularly bad, as they have a flickering light that causes causes brain-wave changes in some people. (This is similar to strobe lights causing seizures, but milder and more common.) I'm not saying fluorescent lights cause serious illness (unless you're exposed to the mercury in them.) But they do cause nausea, dizziness, headaches, etc in substantial numbers of people. Read "Fluorescent_lamps_and_health" in Wikipedia if you don't believe me.

4 Hours Ago from slate.com · Reply

Chad Brick

West Virginia. Right downwind of all the filthy coal plants on the other side of the Ohio.

facepalm

6 Hours Ago from slate.com · Reply

Guest

Hi,
I too am EHS. Each and every person is affected in different ways by electromagnetic fields and radio frequencies. It is unfair to judge people who are affected by the emissions. They do not have all the answers scientifically, but they do know how they feel. No one wants to pull up stakes and search the world for a place that gives them relief. They would prefer to go to a doctor and be given a treatment that would help. I cannot find a doctor to diagnose my condition. I am certain that many things are at play. There is much research coming out on this subject lately that is helping us understand why EMF's cause symptoms. Time will reveal more. In the meantime, everyone should feel compassion toward the sufferers. I am surprised that some of the comments on this site are so vicious. Until you have lived with these symptoms, you cannot know what this suffering is like. Here is a hug for all the sufferers.

9 Hours Ago from slate.com · Reply

Alex Bennett

I'm glad these people have found someplace where they can be alone and out of the rest of our hair.

11 Hours Ago from slate.com · Reply

2013JagFv8f

Perfect.

10 Hours Ago from slate.com · Reply

Laurie

Dear Alex,
If you were my son I would be embarrassed by your lack of compassion.

9 Hours Ago from slate.com · Reply

Write reply here...

Nacoran

" Her problems began in 2010, she told me, when a smart electricity meter was installed on her house; she believes this triggered her boyfriend's heart issues, led to her own hypersensitivity, and even caused her cat to start panting, pacing, and shaking her paws."

So, this very rare condition just happened to start when a very low powered device was attached to her house, caused severe reactions in her, her boyfriend and symptoms so severe she noticed them in her cat, and might have any other cause but she's decided on this one to the point she's become an advocate on the issue.

I suspect the heart problems her boyfriend suffered were from being in a relationship with a tightly wound woman, and the cat probably was having digestive issues after eating some of her tinfoil hat.

12 Hours Ago from slate.com · Reply

BillsCat

Pretty safe bet more than a few weren't wrapped very tight from the start -- the folk with the radiation meter in the living room kind of stand out. Just put on tinfoil hats like everybody else and quit trying to make some kind of cause or campaign out of it.

12 Hours Ago from slate.com · Reply

Allen Garvin

I'm reminded of a study a few years back about what type of placebo works the best...

13 Hours Ago from slate.com · Reply

skeptigal

I love the notion that placebos work even if you know it's a placebo. The physical act of taking a pill or getting a shot can fix you right up.

8 Hours Ago from slate.com · Reply

Write reply here...

KJNOKIE

Sure seems to be a lot of comments from non-Christians or, at least, people who obviously do not display Christian compassion. Same difference.

13 Hours Ago from slate.com · Reply

Mose Henry

You mean the kind of Christian compassion that causes folks to believe the lie that all non-Christians lack compassion?

13 Hours Ago from slate.com · Reply

Alicia

The Christian compassion that requires people to spend thousands of dollars harassing their neighbors and trying to financially punish their communities for trying to be responsible with the natural resources that God created? Yeah, sounds about right.

I feel sorry for these people, but I also feel sorry for the people that they are harassing. If they were merely hermits, I would have unalloyed compassion for them but the fact that they use their sad situation as a reason to hurt others limits that sympathy.

13 Hours Ago from slate.com · Reply

J P McMahon

Christian or not, I think that everyone who is of good intentions agrees that people who are operating under some kind of totally obvious fallacy should be straightened out, and directed toward healthier behaviors. If these people suffered under a delusion that they were being pursued and tormented by some kind of pagan evil spirits, and that hiding from them and performing a pagan ritual that involved drugs and sex deflected the evil somehow, would you have written this comment? Because these people's belief system is just as ridiculous, and the behavior they are engaging in is just as unhealthy, although certainly not as much fun. Maybe one, or some of them will expose themselves to computer radiation and see this thread, and think "Why am I doing this?"

10 Hours Ago from slate.com · Reply

View more items

Write reply here...

5 layers of recursive Javascript

This year's alien anal probe

14 Hours Ago from slate.com · Reply

2013JagFv8f

Now if all the people faking celiac disease would move there, that'd be a start.

14 Hours Ago from slate.com · Reply

EdD

This is a plus. Just let them all live there. Advertise it: "If you have Electromagnetic Hypersensitivity, come live in this place in West Virginia and feel better."

14 Hours Ago from slate.com · Reply

EatPeeps

Yep...that's catchy.

13 Hours Ago from slate.com · Reply

Write reply here...

malcontentinthemiddle

Why don't these whackadoodles just wear tin foil hats?

15 Hours Ago from slate.com · Reply

Dr. Bob

It seems that they do. Several.

14 Hours Ago from slate.com · Reply

The Czar of Casm

Because when the fail is so strong just a hat is not enough?

10 Hours Ago from slate.com · Reply

Write reply here...

Sensha

"Bell has charged the many instances throughout history in which new technologies triggered unfounded, irrational “moral panics.""

Uh, perhaps she meant "charted" here.

And, since we've established using the comment box to post "Like" and "Love", I want to be the first to employ the opposite: "Loathe"
15 Hours Ago from slate.com · Reply

Squiggle
We do loathe an unfounded, irrational moral panic.
15 Hours Ago from slate.com · Reply

Write reply here...

PermieWriter
These folks are sure lucky Tesla didn't get his way and turn the planet into a giant battery.

Hellacious symptoms. The human mind is certainly a powerful organ.
17 Hours Ago from slate.com · Reply

Dr. Bob
Oh, they TELL you he didn't, assuredly.
14 Hours Ago from slate.com · Reply

Kevin Hill
That's what they WANT you to think..... LOL.
1 Hour Ago from slate.com · Reply

Write reply here...

tamster
Well, on the plus side, after the apocalypse when everyone is exposed to radiation and the harmful mind-controlling radio waves from the haarp project turn people into zombies, there won't be any zombies in Green Bank.
17 Hours Ago from slate.com · Reply

Squiggle
Nor any warnings that the zombies are coming...
17 Hours Ago from slate.com · Reply

Chris
16 Hours Ago from slate.com · Reply

R
Like
15 Hours Ago from slate.com · Reply

Write reply here...

Jed Rothwell
There may be some other effect from modern machinery that is bothering these people. Not the EM waves but a high pitched noise, or vibration, or who-knows-what. Heck, it could be mold or mildew in the walls. Moving to a new house would solve that problem inadvertently.

Some are probably psychosomatic, but others might have real organic cause.

People can be remarkably sensitive to various environmental problems. I wish someone would look carefully at some of these people with a sympathetic eye, examining their home environment.
17 Hours Ago from slate.com · Reply

Q
It's hard though when these same people will "fail" a double-blind test and double down on their incorrect belief rather than realizing they're wrong. It's possible you're right, but these people are committed to not understanding the real problem, psychosomatic or not.
16 Hours Ago from slate.com · Reply

Jed Rothwell
I would not expect these people to figure out what is wrong. Suppose that in one case it is really is organic caused by mold in the walls. The patient does not realize that and ends up moving to a new house. The problem goes away, not because the house is free of EM radiation, but because it has no mold.

What I am saying is that I wish experts or doctors would take the complaint seriously and try to find a conventional explanation for it. I hope that doctors are not saying: "We know that EM cannot be causing your problem so it must be in your head, so go home and stop pestering us."

I would disregard the patient's own suspicion of EM but I would assume something actually is bothering the patient.
13 Hours Ago from slate.com · Reply

J P McMahon
Jed, How much of what you are describing would be covered by any health insurance plan? And who would do the tests on the houses? No MD is going to come over to take swab samples from your vent system. If you hire a company that specializes in mold or mildew mitigation to test the house, I can promise that they will find that a major cleaning job needs to be done 100% of the time. You might be underestimating the number of mentally ill people out there.
10 Hours Ago from slate.com

Laurie
Thanks Jed Rothwell.
I appreciate your balanced summation. There is a lot of information available in the 2012 Bioinitiative Report that does implicate ill effects from EMF's. There is also a lot of research showing that folks with heavy metal toxicity can be affected by EMF's. Dental amalgam's have been implicated. Lab research shows that the mitochondria are affected by radio frequencies and these cells will stop allowing toxins out and do not process nitrition properly. The heart can be affected, and this is demonstrated in actual double blind tests with EEG's. There are many factors to be considered. I have discovered that avoidance of both RF and EMF's does give relief. Of course I wish I wasn't symptomatic. I would be out with my friends at all the fun places, but, there is wifi nearly everywhere and it gives me a tremendous headache after about an hour. It is not fun living with this illness.
Just the same, thanks for your kind expressions.
9 Hours Ago from slate.com · Reply

Write reply here...

Mark
I don't buy the sensitivity argument, but the idea of living without any cell phones is like heaven to me.
18 Hours Ago from slate.com · Reply

John Reid
What a perfect place to stage a murder..... if you're into that sort of thing I mean. [awkward glance upward and then to the side]
18 Hours Ago from slate.com · Reply

Dr. Bob
Nice.

Does their sheriff carry an old Walkman with a notched hickory handle?
14 Hours Ago from slate.com · Reply

Write reply here...

Nick Vaughan
I think I'd get a pounding headache if I had to live with one of these self important idiots.
18 Hours Ago from slate.com · Reply

GreenBankNative
I have lived in Green Bank my ENTIRE life and I can assure you that I can, in fact, tune into several radios stations in my vehicle and my house. If you can't even get your lead right, then don't even bother writing a story.
19 Hours Ago from slate.com · Reply

Zhukov the Indomitable!
For starters... AM or FM? And second, I read it to mean a ban on broadcasting from within the zone. You can't very well keep out radiowaves that want to enter the space from outside the zone.
18 Hours Ago from slate.com · Reply

Squiggle
That 's what the silver-threaded shirts are for.
18 Hours Ago from slate.com · Reply

LessPie
You were expecting fact checking and accurate reporting on Slate?

Bwhahahahahaha
17 Hours Ago from slate.com · Reply

Jed Rothwell
I have read about this town in considerable detail. There is no AM or FM radio reception there. GreenBankNative is not telling the truth.

13 Hours Ago from slate.com · Reply

JudyS

AM radio waves can travel hundreds or even thousands of miles, especially at night due to reflection from the ionosphere ("skywave" or "skip.") There is really no effective way to block AM radio waves from entering a particular area unless you enclose the area with a Faraday cage. AM radio reception might not be possible all of the time in Green Bank, but there would be AM reception some of the time.

The AM radio reception would not be much of a problem for the National Radio Astronomy Observatory as radio telescopes typically observe frequencies far above the AM radio band.

5 Hours Ago from slate.com · Reply

Write reply here...

Nandina

I'm fairly certain that the earth is constantly showered with EM radiation from the sun. These people, if their disease were real, would not be safe anywhere. I don't know what it is that ails them, but Em radiation isn't it. Sleeplessness, hair loss, head aches--it sounds like stress to me. Rashes can come from any number of sources. Her chest pain, hot flashes, and numbness sounds like a panic disorder:

http://health.nytimes.com/health/guides/disease/pa...

I can understand the people of Greenbank not appreciating these hypochondriacs. Their community center has to turn the lights off now? Why doesn't this woman simply not go to the community center and let all the others who can enjoy themselves?

19 Hours Ago from slate.com · Reply

TheyCallMeBruce

It's not just any EM radiation, it's microwave and radio frequency EM radiation. The sun does emit that, but the amount any given person gets from the sun is much, much less than if you're sitting 5 feet away from a wireless router or smart meter.

17 Hours Ago from slate.com · Reply

Laurie

Thanks Bruce. It is appreciated when comments are supported by facts.

9 Hours Ago from slate.com · Reply

davej

She's pulling what's called "Coming to the Nuisance". Move into a new area and expect everyone to change for you. It's not clear to me, but the town hall meeting at the observatory ... was she complaining about radiation from the scopes? They are listening devices, right?

16 Hours Ago from slate.com · Reply

Write reply here...

riotsquirrl

Naw, naw, the Greenbank residents have got it all wrong: they should turn this into an economic boom. Figure out how their environment cures *all* the psychogenic illnesses like "Morgellon's Syndrome," the folks who believe that the government is trying to control their thoughts, etc., and make it their new local economy catering to them.

19 Hours Ago from slate.com · Reply

Joe Acerbic

More annoyance than it's worth.

16 Hours Ago from slate.com · Reply

Write reply here...

Charlie

These folks sure could have picked a more convenient expression of their hypochondriac neuroses, like gluten "sensitivity."

19 Hours Ago from slate.com · Reply

JMC

I don't know if this affliction is real, but I'm sure it's very real to them. All I know for sure is that this is going to be my go-to excuse from now on. "I can't mow the lawn today, my EMS is acting up." "No, I don't want to go out, that restaurant's electromagnetic signature makes me nauseous, let alone their decor."

19 Hours Ago from slate.com · Reply

SirWired

Errr... any well run "EM Sensitivity" Provocation study will be done inside a Faraday cage, which excludes all radio-frequency radiation from entering. Such rooms are quite common, and neither expensive nor difficult to construct. I suspect most of the studies were done this way, so arguing that it was the lab equipment's fault is stupid, when the radiation could not possibly enter the

room.
20 Hours Ago from slate.com · Reply

Carlos Spicy Weiner
I doubt that those few dozen people actually have the disorder.
20 Hours Ago from slate.com · Reply

Squiggle
Because it doesn't actually exist?
20 Hours Ago from slate.com · Reply

lenny briscoe
We all doubt that.
20 Hours Ago from slate.com · Reply

Sparafucile
I love the tag, "Carlos Spicy Weiner". Very original and funny! Thanks for the laugh!
13 Hours Ago from slate.com · Reply

Write reply here...

lightrail
Specks of peanut dust can't hurt you, either - how absurd!!! Invisible "bugs" on our hands that make people sick? You've got to be kidding me! DDT? Completely safe!

People sure are willing to believe whatever they're told.
20 Hours Ago from slate.com · Reply

Squiggle
Who said any one of those three things?

Talk about a lazy straw man.
20 Hours Ago from slate.com · Reply

lenny briscoe
Like
20 Hours Ago from slate.com · Reply

lightrail
People historically have said all of those things. Just like what many are saying now about different kinds of electrical fields being safe. It's called an analogy, not a straw man.
20 Hours Ago from slate.com · Reply

The Czar of Casm
Actually, it's called neither. It's called I-can't-come-up-with-a-plausible-mechanism-of-how-the-electrical-fields-are-unsafe-so-I'll-just-make-stuff-up.
19 Hours Ago from slate.com

Charlie
Thing is, there is actual evidence supporting the germ theory of disease, the fact that peanuts contain allergens, and the toxicity of DDT.

There is no evidence for "electrosensitivity." None.
19 Hours Ago from slate.com

Dr. Bob
Dear, they tested for EM sensitivity. And, they tested for peanut allergies.

Guess what the difference was?
14 Hours Ago from slate.com

Squiggle
An analogy becomes a straw man when its specific purpose is to try to attack an argument by misrepresenting that argument - replacing it with a superficially similar argument that appears less credible to someone who isn't pay attention - but not actually addressing the foundations of the original argument.

So, your straw man tries (falsely) to equate the failure of any proponent to produce real evidence for EMF effects on human illness, with a denial of a specific biological allergen's or a specific biological infection agent's roles in human illness.

The fact is science has borne out germ theory, and peanut allergies. It has distinctly NOT borne out EMS theories, and has in fact provided a lot of evidence that EMS is psychosomatic.

So - your analogy is poor, and your argument based on that poor analogy is an easily defeated straw man.
20 Hours Ago from slate.com · Reply

The Czar of Casm
likes
19 Hours Ago from slate.com

sylvie369
+1 Like.

Don't be so accepting of everything you hear, lightrail. A little skepticism would serve you well.
19 Hours Ago from slate.com

lightrail
As you seem a little slow on the uptake, none of the evidence for germs, DDT dangers, etc. existed when people said those were safe, either. Duh, that's the point.
19 Hours Ago from slate.com

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lightrail
It was fun slumming with y'all. Come back again when you've read more about the scientific method, Galileo, Copernicus, et al, lol.
19 Hours Ago from slate.com · Reply

Charlie
You use words like "proof" and say the onus of proof is not on the proponent of a hypothesis. You know nothing of the scientific method, and you're not a scientist.

Are you that pulp science fiction writer who was posting here a few weeks ago, or some new crank?
19 Hours Ago from slate.com · Reply

sylvie369
+1 Like.
19 Hours Ago from slate.com

airbagmoments
Lightrail has proved one thing: the Dunning-Kruger effect.
18 Hours Ago from slate.com

Squiggle
@airbag - Like!
18 Hours Ago from slate.com

sylvie369
lol. Kid, you're the one who knows nothing about science.

If that weren't already clear, your "the scientific method" comment certainly demonstrated it. You're in WAY over your head, and since you've already clearly demonstrated that, you're simply not going to be able to insult us effectively. Go back to the Cheetos and kiddie music.
19 Hours Ago from slate.com · Reply

Zhukov the Indomitable!
I prefer Karl Popper.
18 Hours Ago from slate.com · Reply

Mark
Dude, DDT is safe for people. I had a teacher that used to eat the stuff. It's not safe for bugs, but that doesn't mean it's not safe for mammals. Like chocolate is bad for dogs, that doesn't make it unsafe for humans.
18 Hours Ago from slate.com · Reply

Write reply here...

lightrail
This can't possibly be real, because we all know we're all exactly the same and all react to things exactly like everyone else does!
20 Hours Ago from slate.com · Reply

lenny briscoe
No, but most of us know that the scientific method can differentiate between real problems and imagined ones.
20 Hours Ago from slate.com · Reply

lightrail

But the scientific method hasn't disproved yet what they're claiming. Absence of evidence is not evidence of absence.
20 Hours Ago from slate.com · Reply

Charlie
That's because science can't "disprove" anything. It can test hypotheses. It can evaluate evidence. But you cannot "prove" or "disprove" anything using science. "Proof" is a purely mathematical concept, so unless we're talking about theorems, don't use that word.

But even if I take your sloppy language on its face value, you're still making an impossible demand. A hypothesis (which is a statement that explains a phenomenon) is either supported by robust, convincing physical evidence and upheld, or it's not supported and it's rejected. And the onus of evidence is on the person proposing the hypothesis. That means the electrosensitivity proponents need to back up their claims with evidence - it's not up to those of us asking for proof to do the work.
19 Hours Ago from slate.com

lightrail
Is that what you learned in high school science class, Charlie? Of course it's a bit childish, because we know that in the real world science "proves" and "disproves" things every day. It just shows how far out of your depth you are to have to rely on the kiddie definitions about onus of evidence, etc. lol.

Science has proved for all practical purposes that water freezes below 32F, and has disproved that it melts below 32F. Not that difficult, is it?
19 Hours Ago from slate.com

lightrail
Did you know that every single time you've ever taken an aspirin or a medication, you've improved only because of the placebo effect - it was all in your head?

I bet you don't like being told that, do you? And yet you're fine telling someone else what they might or might not be experiencing, with no evidence to back you up. Not really intellectually honest, is it?
20 Hours Ago from slate.com · Reply

SirWired
Ah, a troll. (or so steadfastly ignorant of science as to be indistinguishable from one)

Have a nice day.
20 Hours Ago from slate.com

lightrail
The science is actually starting to show that cell phone radiation causes brain cancer. Most people didn't believe that when concerns were first being raised, either.

Sad that so many who think they're intelligent and "scientific" really have no clue about how clueless they really are.
20 Hours Ago from slate.com

lightrail
Why should I have to provide you with what's now common (or in your case, I guess not) knowledge? Do you want a citation that the earth revolves around the sun, too? The evidence is mounting such that even WHO has classified cell phones as possible cancer causing agents. Do a google search, you know how to do that, don't you?
19 Hours Ago from slate.com

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SirWired
This can't possibly be real because a huge number of relatively simple to understand (and perform) experiments with people purportedly suffering from this disorder have all shown that no such effect exists. That's as close to proving a negative as science ever gets.

(EM Provocation studies are done inside a Faraday Cage, so the idea that study failure is the result of stray radiation from lab equipment is stupid.)
20 Hours Ago from slate.com · Reply

lightrail
You haven't tested all genetically polymorphic populations under real world conditions. Fail.
20 Hours Ago from slate.com · Reply

lightrail
I do know about the scientific method, which is how I know it's faulty to dismiss these claims without having scientifically tested them. All you're doing is making a judgment with no evidence. That's the opposite of the scientific method, so you fail pretty badly.
20 Hours Ago from slate.com

lightrail
Plenty of citations exist. Search pubmed. Or are you simply too lazy to do your own research?
19 Hours Ago from slate.com

The Czar of Casm
Are you too lazy to come up with a plausible mechanism?
19 Hours Ago from slate.com

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TheyCallMeBruce
There has NOT been a "huge" number of studies.
17 Hours Ago from slate.com · Reply

Write reply here...

J J
Ah the power of suggestion. The human mind is an amazing thing.
20 Hours Ago from slate.com · Reply

meh123
See religion.
20 Hours Ago from slate.com · Reply

Write reply here...

De Cosmos
These people are really setting themselves up to be unwitting test subject for experimental electromagnetic weapons tests.
20 Hours Ago from slate.com · Reply

lazyturtle
Whenever I read something like this, it really puts things into context. Like when I say "my wife is crazy"..no, apparently she is not. There are much crazier people out there.
20 Hours Ago from slate.com · Reply

Zhukov the Indomitable!
It does make me feel so amazingly normal...
20 Hours Ago from slate.com · Reply

De Cosmos
I don't know. Following a crazy trend that has a community legitimizing it, like speaking in tongues, seems more understandable to me than being independently crazy, even if your craziness is more modest.
20 Hours Ago from slate.com · Reply

ScotchMeBabe
there is crazy....and then there is CRAZY
20 Hours Ago from slate.com · Reply

Write reply here...

katielady
Ahem...*Marlinton (not Marlington). I grew up halfway between the two!

It's true that there are no jobs for locals. Growing up, my dad had to work away during the week and came home during weekends. This is not uncommon. But the disdain against these individuals (who I've never met personally, nor has my family knowingly engaged with any of them) isn't simply an economic one. We accept many of the people who come into the county, but if they are isolating themselves due to a false sense of superiority, then I don't want them in my area either. We have enough problems.

Also, if they really REALLY want to keep their little haven free of the evils of cell phones and interwebz, they should sign the petition on change.org to keep the GBT open. The NSF has recommended closing it by 2017 which would be devastating to our county's little communities.

20 Hours Ago from slate.com · Reply

Geoff
It's "Marlinton". No g.
20 Hours Ago from slate.com · Reply

airbagmoments
The movie "Safe" with Julianne Moore springs to mind.

One of the 5 worst movies I have ever seen, but on topic.
20 Hours Ago from slate.com · Reply

Joe Acerbic
Who can you sue if you have a hypersensitivity to kooks, causing nausea and vomiting?
20 Hours Ago from slate.com · Reply

Zhukov the Indomitable!
News Corps?
20 Hours Ago from slate.com · Reply

Write reply here...

Zudnic
The irony of this being in the same town as the National Radio Astronomy Observatory is moderately entertaining (although NRAO is a passive dish).
21 Hours Ago from slate.com · Reply

Zhukov the Indomitable!
If its passive, then there is no irony.
20 Hours Ago from slate.com · Reply

Dr. Bob
Certainly, that's what they tell you, isn't it?
20 Hours Ago from slate.com · Reply

Squiggle
Passive or not, the fact is it exists to read electromagnetic radiation. If the area were truly free of such, it wouldn't exist, right?
20 Hours Ago from slate.com · Reply

TheyCallMeBruce
It exists to read the very faint radio frequency EM radiation originating outside our solar system. The area is *relatively* free of man made radio frequency EM radiation, therefore this very faint interstellar radiation is not masked by much stronger man made radiation as it is in most of the continental US.

The only irony here is how ignorant a statement it is to say it's ironic.
17 Hours Ago from slate.com · Reply

Jed Rothwell
I recall that someone from the NRAO said: The total energy from all of the radio signals read by this instrument in its history is less than the energy from a single snow flake hitting the ground.

Obviously there is a great deal of EM radiation there from the solar system and from human sources. But they reduce the background as much as possible. I recall reading about an engineer who does this. He spent hours one day driving around with a truck full of instruments, trying to locate a noise source. He finally found it. It was a heating pad in a doghouse with a short circuit. He went to the store, bought a new heating pad and explained to the elderly couple in the house that he needed to give their dog a new heating pad.

That's the kind of effort they put into reducing background noise.
13 Hours Ago from slate.com · Reply

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