

# Contingencies

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## Bad Air, Good Science

**A**RDIAN GILL'S ARTICLE ABOUT STEVEN JOHNSON'S book *The Ghost Map* is more than just a review. It's an essay about wrong connections and the persistence of fuzzy thinking in the face of hard evidence. The book is a riveting mystery about how Dr. John Snow tracked down the true culprit behind a London cholera outbreak in 1854. You don't get cholera by breathing bad air, Snow showed the powers that be; you get it by drinking contaminated water.

Gill draws an explicit analogy between the city's public-health officials' allegiance to their own misguided miasmatic theory of disease and a certain administration's position on a certain war, but there's another analogy that might be worth making, too.

Basically, the miasmaticists believed that whatever smells bad can kill you. And Johnson illustrates in nauseating detail just how bad Victorian London

smelled, with all the viscous opportunities for noxious death lurking in the drains and sewers and cellars of even its better neighborhoods.

Today, of course, we consider the miasma theory of disease to be junk science. At the time, however, it was accepted as truth by most of the scientific establishment. It was Snow's renegade theory about contaminated water that was considered junk.

It wasn't that long ago that the theory of global warming was considered junk science, too. And despite the burgeoning evidence to the contrary, there are those who persist in considering it so. And they're strident. Visit [junkscience.com](http://junkscience.com) and you'll find all sorts of reasons why global warming is the biggest hoax ever perpetrated on mankind. It hurls the same kind of accusations the miasmaticists hurled at Snow in the pages of the British medical journal *The Lancet* 150 years ago.

And who knows? A few jurors may still be out. Johnson takes great pains in his book to point out that the miasmaticists weren't just crackpots or charlatans. Their theory was based on our highly evolved gag reflex that sends us running from rotting, putrefying, malodorous things, things that may very



John Snow

well kill us if we get too close or too much. And crowded Victorian London was literally drowning in unprocessed excrement, both human and nonhuman. So who wouldn't assume, as the miasmaticists did, that the smell alone could kill you?

But, of course, they were wrong.

There are also those, though admittedly not as many, who see not even junk science but the hand of

God in global warming. It's simply a prelude to the End of Days, a just punishment for mankind's multifarious sins and transgressions. And there were also many Victorians who viewed the scourge of cholera the same way. Including one, Henry Whitehead, who intimately tended the sick and dying and who pursued the truth behind the outbreak on his own.

Ultimately, Whitehead was won over by Dr. Snow's waterborne theory, and they worked together to solidify the overwhelming proof. Somehow, Whitehead was able to embrace scientific truth without renouncing his faith in God. He remained a vicar until his death at the age of 70.

Does all scientific truth start out as junk science? Probably not. Most of it just happens quietly, out of the limelight, in the course of inquiry, disputation, and verification. But when the stakes are high, and comfort zones are threatened, the process can get ugly. Fortunately for us, we found out who the junk scientists were back in the 19th century. Let's hope our descendants will be as lucky. ●