**Headline News from Oz: Not all wizards are magical**

By [Jon Carroll](http://www.sfchronicle.com/author/jon-carroll/) April 27, 2015

You may be following the adventures of Dr. Oz, expert on all things health. Mehmet Oz, a respected surgeon on the faculty of Columbia University, is also a certified television star and host of his own syndicated program called “Oztastic!” OK, I made that last part up.

For reasons not entirely clear, Oz had been spreading junk science for ever so long. A Senate subcommittee on consumer spending spent an entire 2014 session berating Oz for promoting a weight-loss supplement that had no value at all. The panacea in question was something called Pure Green Coffee.

“Pure” may be headed for the pit occupied by “natural” and “whole grain,” soothing words that don’t mean anything.

Oz managed to escape that tongue-lashing unscathed (Ratings? Doing great!), but two weeks ago there was another gnat buzzing around his leonine head: A letter to Columbia from 10 doctors saying he promoted many products that did not do what he said they did. More unkindly, they suggested that Oz should be dismissed from the school’s faculty.

Apparently, this gnat appeared to Oz as a looming elephant. Perhaps the whole Columbia thing is important to his branding strategy.

He spent a good deal of his hour-long show attacking the doctors and alleging that they were part an international GMO conspiracy designed to silence all dissenters. He stood bravely against his enemies, which is in itself no marker of virtue. You can be brave and wrong.

(GMOs have had enormous benefits in the Third World, including increasing agricultural yields. Also, a genetically modified mosquito has decreased dengue fever, and a genetically modified cow can no longer pass on trypanosomiasis to humans via the tsetse fly. The GMO debate isn’t just about Monsanto and pesticides.)

Oz also wraps himself in the First Amendment, saying that his constitutional protections have been violated. Well, no. No one is forcing Oz to shut up; they’re just disagreeing with his opinions — and they have evidence! And, on the issue of who’s silencing whom: What power do 10 professors in a New York Times ad have over a photogenic doctor with a national TV show?

It’s the doctors who are being urged to shut up — or get pilloried again in front of a fawning audience.

And besides, if I wrote a long article about a guy who said that the best thing for a broken leg was a half marathon, would my right to free speech be an issue? No, the issue would be my willful disregard of overwhelming evidence on the other side. If I distorted the truth like that, I would be labeled (rightly) as untrustworthy.

But not Oz. His followers are all: You can’t trust scientists. They’re in the pay of Big Money. Did you know that aluminum pans cause Alzheimer’s?

**In other news:** I’ve been trying to talk about aquifers, which are what hold the groundwater reserves that California farmers are relentlessly depleting. The drought has made all that pumping worse, but farms were too thirsty way before the climate changed.

So let reader Kenneth Koutz fill you in on how it’s gone:

“Several weeks ago you suggested that once an aquifer loses water, it is lost as a water resource. A couple of days later, you corrected this to say that the aquifer can refill.

“The truth actually lies between these two. An aquifer is not like a large balloon that expands and contracts as water is added or withdrawn; it is water-permeable rock, usually gravel- or sand-like. Limited amounts of water can be removed and added.

“However, when water is removed, the water table lowers, and other materials can move in. When non-permeable material, e.g., clay, replaces the water, water can no longer return. In places where this occurs in California, notably the Central Valley, wells must be drilled deeper and the land subsides.

“Bottom line: What’s happening in the Central Valley is the permanent destruction of at least part of the aquifer.”

That’s the trouble with reality-based thinking: It’s complicated. If you’re learning a new subject, it is wearying indeed to poke down all the little holes that inference creates. Yet that’s what scientists do: They patiently poke around.

I suspect that the reality of aquifers is even more complicated, and that at the end of the evidence, a little mystery remains. Scientists signal that by saying “we don't know.” That enrages people who want certainty.

There’s stuff we don’t understand about water. Even our best guesses will have unintended consequences. If we move a whole bunch of water around, other things are going to happen. Fish sometimes don’t behave the way you think they should; neither do farmers.

Having said that: It’s real close to certain that unchecked groundwater pumping will hurt the Central Valley permanently, and that farmers will destroy that which they most value. So let’s regulate the hell out of sucking up that permeable rock slurry. Nine of 10 Columbia doctors agree.

*The chief difficulty Alice found at first was in managing her flamingo: she succeeded in getting its body tucked away, comfortably enough, under* *jcarroll@sfchronicle.com**.*

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