

Food Evolution's NYC premiere proof science and reason can win over GMO skeptics

Last Friday was the premiere of "Food Evolution", a documentary on the science in our dinner, and I saw it with a large audience for the second time.

Wait, premiere? Second time? Which is it?

It's both. And that is how it became a tale of two cities. And maybe even a metaphor for the two Americas we now live in.

Two weeks ago I moderated a panel on communicating science and, more importantly, *risk*, at the University of Guelph, Canada's most prominent agriculture school. In the evening, there was a showing of "Food Evolution" in an auditorium there. I don't know how many people attended, it was packed, and before the movie there was a show of hands on how many people were okay with GMOs, how many distrusted them, and how many were unsure.

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University of Guelph, about 10 minutes before the start of "Food Evolution." I am closest to the front in the picture, between Professor C.S. Prakash of Tuskegee University and Dr. Brandon McFadden, agricultural economist at the University of Florida. A row back is Professor Kevin Folta, who writes on his own site and here at Science 2.0. The thumbs up is Dr. Maria Trainer, geneticist and Managing Director of Regulatory Affairs at CropLife Canada. Also in that row is Jon Entine, who writes at Science 2.0 and founded Genetic Literacy Project, David Zaruk, "the Risk-Monger" and as you can see, many others.

There were only a few who distrusted it, maybe 3 percent of the audience, more were unsure. *This is at an agriculture school, scientists and farmers, so none of the people against this science are changing their minds*, I remember thinking. *They are die-hard activists. The real test will be in New York City, where no one is a farmer and there are no agriculture schools and they match the cultural beliefs of the anti-science movement when it comes to food.*

And then we watched the movie. It's compelling. It never felt like 93 minutes, even the second time. And it is touching in spots. It is humorous. It checks off all the right boxes to be for food what Al Gore's "An Inconvenient Truth" was for climate change. You should go see it. I'll even buy it.

But I had to wonder; am I no longer the target audience?

I certainly was once. I started the Science 2.0 movement because I was a fan of science. I wanted to create ways for scientists to collaborate and communicate, and for the public to participate. At heart, I wanted to create a place for all of the people I liked to read without me having to look at 50 different RSS feeds. The success of Science 2.0 led to me being named the second President of the nationally

prominent American Council on Science and Health in 2015.

But a lot has changed since 2006. I had a bestselling book, I've written articles for *Wired*, *USA Today*, *Wall Street Journal* and too many other places to count. I stopped counting the number of readers here at 80 million. I have given talks with Prof. Dennis Gonsalves, who ended the ringspot virus papaya in Hawaii using GMOs and is featured early, I have given talks with probably many of the people in the movie by now (agricultural science media is a pretty small group), so I had to wonder if I am giving it a free pass because I am now an insider. After all, nothing makes you feel the pain of scientists more than when someone like the attorney who runs Sourcewatch and is on the Board of US Right To Know, Lisa Graves, tries to start a [rumor](#) that you are a convicted *felon* but you have only even had one speeding ticket in your life, for going 60 in a 55 MPH zone after it had rained. Or they delete the Wikipedia page about you.

If 300 groups propped up by Organic Consumers Association will smear me, start petitions to get me banned from newspapers, and threaten my children, and I did nothing but start a science website, imagine what they are doing to Monsanto scientists – or academic scientists who implicitly help Monsanto by defending GMOs.

I have no thoughts on Monsanto, other than I think they are terrible at controlling their public image. Organic food bloggers may hate them but Monsanto's customers absolutely love the company. That speaks volumes. However, I recognize that Monsanto is the 800 lb. galoot in any discussion of GMOs and chemicals. The company is mentioned numerous times in the film. To me, there is no discussion of food science without talking about Monsanto too, but am I too inside science media to see how that could be a problem for public acceptance of the film?

Forgetting the anti-science hippies, the die-hard activists who will never change their minds, I wondered if the public would simply see this as a pro-business propaganda alternative to "Consumed" or "Food, Inc." or "OMG GMO"?

In order to think about that, we have to ask...

The awkward question

When I give talks on science journalism, I tell the audience there is a reason that science journalism is not well-respected these days. Somewhere along the way we became culturally in the bag for a political party, we decided to *defend* science, we decided to be *cheerleaders* for science. That is the antithesis of what the public needs from us.

Instead of doing those things, I tell young science journalists; ask the awkward questions, even of people and work you admire. Leave creampuff advocacy pieces for journalists who are never going to accept science, like Paul Thacker or Danny Hakim, or who write about miracle vegetables that will detox you. Instead of being cheerleaders or even feeling like you have to defend science, be trusted guides for the public. They *want* to read you, but first they have to trust you. And science journalists have lost a lot of trust since I shared that advice in 2012's "Science Left Behind". After the 2016 Presidential campaign journalists command even less respect. We are all stigmatized by that, don't create a simple barrier to

entry for your work by wearing your politics or an agenda on your sleeve.

So the awkward question I had when I first learned of the documentary was this; who is funding it? Is it Monsanto? Is it Ketchum or APCO or any of those other PR companies who make great Powerpoint presentations to large companies insisting they will “own social media” if you just cut them a big check?

The refreshing answer is “no.” It was spearheaded by Institute of Food Technologists, and at the time they started on this, that group was run by Dr. Janet Collins, PhD, RD, CFS, a food scientist and a registered dietitian. Her knowledge of the issues and her ethics are beyond refutation – unless you are part of the “astroturf” green movement that assumes any scientist who knows anyone at a non-organic-food corporation, much less worked at one, is tainted.

The truth is, if you defend applied science, you implicitly defend corporations. Sorry activists, 50 percent of basic research in America is done by industry and 100 percent of applied research is. During the discussion after the film, Producer Trace Sheehan recounted a question by editor Alex Blatt when they were cutting together probably 100 hours of film, and noticed a lot of Monsanto was in there; “What if Darth Vader helped develop the polio vaccine?”

Would we deny a polio cure?

Let’s be honest about corporate diplomacy; if you are in cahoots with a company, you do not mention Darth Vader and them, even though the check cleared long ago. Not even as a way of providing an example of how companies with bad images do good things.

Monsanto clearly did not tell these folks what film to make. They probably instead made the film because they were outraged when they realized they were being manipulated by activists who they thought they could trust because of the word “environment.” Just like a lot of us.

Two Americas

I mentioned this was not just a tale of two cities, New York and Guelph, it is a tale of two Americas. I don’t mean Republicans and Democrats, though that is a factor, I really mean the 2 percent who grow all of the food and the other 98 percent who feel like they are experts.

I get it. I am sympathetic. If you don’t like a Ford automobile, you can buy a General Motors one instead. You won’t march against Ford’s cars because you bought GM. But we can’t opt out of food. That makes it a values issue and if you care about other people, you will speak up.

When something is a values issue, a judgment made including those who have never worked on a farm, showing people more data on how much better yields are now has failed to be very convincing. Though the scientific consensus on GMOs is higher than on climate change, only 33 percent of Americans say they are fine with GMOs. The gap between scientists and the public is larger than in any other politicized field of science.

In 2012’s “Science Left Behind”, Dr. Alex Berezhov and I showed that if you found an organic consumer,

there was a strong chance they were going to have anti-vaccine beliefs, alternative medicine acceptance, anti-energy beliefs and even the same voting record.

At the time, it was an unpopular notion, Democrats had wrapped themselves in the flag of being the “Party Of Science”, President Obama called himself “Scientist-In-Chief”, etc. We now know the President at that time was no more scientific than his predecessor (or less) they were just pro-science or against it on different issues. President Bush did not think much of global warming or human embryonic stem cells, President Obama was against agriculture and natural gas.

Now, this schism between left and right is obvious. Even the *New York Times*, which a few months ago published a whole series of articles written to promote fear and doubt about our food supply, recognize they were on one side. They were not trusted guides for the entire country when their editorial slant was so geared toward the science beliefs (and denial) of one party. To try and be more balanced on all science issues, a columnist there wrote an article on global warming saying we should continue to ask awkward questions of those scientists – and NYT readership went into a rage, with thousands threatening to cancel because *the science was settled* on climate change.

Twitter storms and threats to cancel their subscriptions by progressives in science blogging and media over their merchant-of-doubt multi-part, long-running series against agriculture? None.

There are two Americas when it comes to science.

But maybe that can change. Because it did change. I saw it. And I would never have predicted it.

trace sheehan neil tyson scott hamilton kennedy alison van eenennaam

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L to R: Food Evolution Producer Trace Sheehan, narrator and script consultant Dr. Neil Tyson, Director Scott H. Kennedy, Dr. Alison Van Eenennaam.

In Guelph, I mentioned there were only a few who distrusted GMOs, a few more were unsure. At the end of it, the unsure people had changed but the people opposed were still opposed. No surprise to me acceptance was so high, as I noted, because they live agriculture every day there. They know farmers. They know scientists. They see the benefits.

In New York City, where few people know a farmer or a scientist, the show of hands was more like what I expected. Around 25 percent of the audience distrusted GMOs before the film started. I had my question all lined up for the panel when I saw those hands; with only 2 percent of Americans growing all of the food, but the other 98 percent claiming to be experts, can we really expect to change enough minds to make a difference? We have two Americas, the agricultural and the urban, the left and the right, the scientific and the values-based. Those are a lot of cultural knobs to turn.

Is there any *hope*?

I never asked the question. Because when the survey was taken again at the end, there was just one person still unconvinced. And this was in New York City, where 80 percent voted for Clinton, where everyone claims they are in touch with the working class even though they are in the top 20 percent of incomes in the US, where Whole Foods is the place they Uber to and fracking is a no-no and vaccines are something for poor people to get in order to give Manhattan special snowflakes herd immunity.

That same New York City, as far removed from food as you can be, saw that scientists are environmentalists too, that all of us share a lot of similar values, they saw that GMOs are just a process, no different than kosher food is a process. *They changed their minds.*

One poignant part of the film asks a sympathetic question in order to humanize people who are afraid of GMOs, despite thousands of studies and decades of use with no harm; “When was the last time you changed *your* mind?”

Change is hard.

In Manhattan, they did change their minds. And I would have bet anyone against that happening before the show started. Which means I had to change *my* mind about New Yorkers and science.

And I very much thank you for that, Food Evolution.

A version of this article appeared at Science 2.0 as “[‘Food Evolution’: A Tale Of Two Cities](#)” and has been republished here with permission from the authors and the original publisher.

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