

COMMENTARY

Media and Science: Keeping it Real

DEBRA SIMES

In a national political and cultural climate of challenges to the notion that information can be trusted as “real,” and news reporting as reliable rather than “fake,” the dynamics of the science information landscape are worthy of attention. There are several elements in this portrait: industry that will purchase academic or scientific reports to serve its interests; academicians, scientists, and others who are willing to sell; careless or under-resourced news outlets; increasing complexity of information coupled with poor science literacy; and impacts of the digital revolution—which, for all the “democratization” of information, has also led to widespread confusion and skepticism in the public square.

A January 19, 2017 *Newsweek* article titled, “The Campaign for Organic Food Is a Deceitful, Expensive Scam,” by Henry I. Miller, MD, made the titular argument. Further, it posited a concerted and well-funded “black marketing” campaign “to discredit and diminish genetically engineered foods and to attack their defenders in the scientific community. The chief perpetrators of this . . . campaign are lobbyists for the organic agriculture and ‘natural products’ industries and their enablers.”

Organizations, such as Beyond Pesticides, that work to advocate for organic food and agriculture as the safest for human and environmental health, no doubt found that claim rich. Stacy Malkan, co-director of the consumer watchdog and transparency group Right

to Know, in her piece, “Monsanto’s Fingerprints All Over *Newsweek*’s Hit on Organic Food,” writes, “Miller’s *Newsweek* hit on organic food has Monsanto’s fingerprints in plain sight all over it.”

The piece was first written for and published on the Hoover Institution website; the Hoover Institution is a think tank and public policy organization, sited at Stanford University, that is influential in conservative and libertarian circles.

INDUSTRY PURCHASING SCIENCE

Among the spurious claims made in the *Newsweek* article are these: organic agriculture is more harmful to the environment than conventional agriculture, and North American supporters of organic spent \$2.5 billion in 2011 on anti-GE (genetically engineered) food campaigns. The latter claim was made by Jay Byrne, formerly a corporate communications director for Monsanto, and current director of a public relations firm that specializes in “reputation management.”

As an exemplar of the “industry purchasing science” phenomenon: Monsanto works with people such as Dr. Miller and Jay Byrne to launch disinformation attacks on issues, scientists, and advocates. According to Ms. Malkin, Dr. Byrne was instrumental in helping Monsanto establish a corporate front, called Academics Review, that generated a report critiquing the organic “industry” as a marketing ploy—the theme of Dr. Miller’s *Newsweek* article. The front group was designed, says Ms. Malkin, to seem legitimate yet function as a “platform from which academics could attack critics of the agrichemical industry, while secretly receiving funds from industry groups, and also claiming to be independent. Wink, wink, ha, ha.” “The key will be keeping Monsanto in the



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background so as not to harm the credibility of the information,” wrote a Monsanto executive involved in the plan.” (Beyond Pesticides wrote about Monsanto’s tactics in the fall 2017 issue of *Pesticides and You*.)

On the “academicians ready to be compensated” front: Dr. Miller has a history of working with corporations looking to reassure the public that their not-so-safe products are safe and do not need regulation. Not long ago, he was exposed as having published an article in *Forbes* magazine, under his name, that was ghostwritten by Monsanto. *The New York Times* broke that story, which was based on an email exchange between Dr. Miller and Monsanto; that exchange surfaced as evidence in a lawsuit against the company. *The Times*’s Danny Hakim wrote, “Monsanto asked Mr. Miller if he would be interested in writing an article on the topic, and he said, ‘I would be if I could start from a high-quality draft.’ The article appeared under Mr. Miller’s name, and with the assertion that ‘opinions expressed by *Forbes* Contributors are their own.’ The magazine did not mention any involvement by Monsanto in preparing the article.”

In his *Newsweek* article, Dr. Miller also sought to discredit the reporting of Mr. Hakim, without mention of the fact that it was Mr. Hakim who exposed Dr. Miller’s Monsanto ghostwriting scandal. Ms. Malkan noted that Dr. Miller has gone on, in spite of the *Forbes* scandal, to produce promotional content published in *The Wall Street Journal* (in addition to the cited *Newsweek* piece), without disclosing his compromising relationship with Monsanto.

MANUFACTURING COUNTERFEIT SCIENCE

These ethically dubious realities are neither new nor confined to Monsanto, or to the food or GE sectors. The pharmaceutical industry is famous for hiring ghostwriters to write about science in ways that resemble marketing as much as science reporting. As have the tobacco and sugar industries, the fossil fuel industry

has engaged for decades in a pervasive disinformation campaign, hiring scientists and academics prepared to shill for them. As the Union of Concerned Scientists has written, “Some companies choose to manufacture counterfeit science—planting ghostwritten articles in legitimate scientific journals, selectively publishing positive results while underreporting negative results, or commissioning scientific studies with flawed methodologies biased toward predetermined results. These methods undermine the scientific process . . . [and] can have serious public health and safety consequences.”

In 2015, Greenpeace conducted a “sting” operation in which it approached, in the guise of consultants to fossil fuel companies, seven professors at leading U.S. universities to commission reports touting the benefits of rising carbon dioxide levels and the benefits of coal. Five declined, but William Happer, PhD, the Cyrus Fogg Brackett professor emeritus of physics at Princeton University, expressed interest in the fake commission. Dr. Happer asked to donate his fee to the CO₂ Coalition, whose mission is . . . to “shift the debate from the unjustified criticism of CO₂ and fossil fuels.” The group also asked Frank Clemente, PhD, a retired sociologist, formerly at Pennsylvania State University, to do a report countering damaging studies on Indonesian coal deaths and promoting the benefits of coal.

Both professors proffered methods for hiding the source of funding for the reports, at the request of the fake companies. As *The Guardian* reported, “In Happer’s case, the CO₂ Coalition, which was to receive the fee, suggested he reach out to a secretive funding channel called Donors Trust, in response to a request from the fake Greenpeace entity to keep the source of funds secret.” Further, Dr. Happer acknowledged that his report would likely not survive the peer-review process typical of legitimate scientific journals. “I could submit the article to a peer-reviewed journal, but that might greatly delay publication and might require such major changes in response to referees and to the journal editor that the article would no longer make the case that CO₂ is a benefit, not a pollutant, as strongly as I would like, and presumably as strongly as your client would also like,” he wrote.”

THE CASTING OF DOUBT ON INDEPENDENT SCIENCE

Greenpeace notes that this investigation showed what the public rarely sees: the practice of clandestine industry commission and funding of reports that cast doubt on critics of industry, or promote industry positions on controversial issues in the public and political realms. Industry will trot out such research or reports in a way that hides or obfuscates its role in shaping the information—sometimes through complex machinations, as with Monsanto’s “Academics Review” organization, that appear on the surface to have no relationship with the corporation.

The obscuring of that information dupes the public into believing that such reports come from “independent” scientists or academics. This “independent academic” ruse contravenes what has long been a tenet of science communication, and is a great disservice to members of the public who are trying to figure out what is real and true. What makes science useful in informing public policy is that it, per se, has no “skin” in the commercial or political game—i.e., it is useful when it is genuinely independent. It is supposed to operate, and to be communicated, on its own merits. Ms. Malkin predicts that, “As more documents tumble into the public realm—via the Monsanto Papers and public records investigations—the ‘independent academic’ ruse will become harder to maintain for industry PR writers such as Henry I. Miller, and for editors, journalists and policy makers to ignore.”

THE CHOCOLATE SCAM

In 2015, a science journalist mounted a deliberate hoax to demonstrate the point, as he had done previously in collaboration with the journal *Science* in 2013. As reported by National Public Radio’s *The Salt*, in a piece titled, “Why a Journalist Scammed the Media into Spreading Junk Science,” John Bohannon, PhD, a science journalist with a PhD in molecular biology, conducted an actual research study on the potential role of chocolate consumption in weight loss. The research intentionally featured multiple design flaws, including too few subjects and too many variables. Dr. Bohannon then got it published in the *International Archives of Medicine*, which failed to carry out peer reviews of the findings—and which charges researchers and authors for the privilege of being published, aka, a so-called “pay for play” publication. Media outlets subsequently fell all over themselves to shout the news that eating chocolate could help people lose weight.

The science-media entropy is described by Robert Gebelhoff, writing in 2016 for *The Washington Post*: “Science and health media writers are constantly in need of new, sexy studies. . . . Meanwhile, scholars and academic journals face pressure to produce work that gets attention from media outlets—doing so can elevate the stature of their research, which in turn promotes their funding. At the same time, researchers have become very good at playing with data—such as shifting the length of their experiments or picking and choosing which variables to control for—in order to come out with the results they want.”

The Achilles’ Heel for media is exactly what happened in the “chocolate” case: those covering and pushing the story failed to ask independent experts to evaluate the research, which should be standard operating procedure if the media entity cannot do it on its own. Dr. Bohannon wrote, “You have to know how to read a scientific paper—and actually bother to do it. For far too long, the people who cover this [nutrition science] beat have treated it like gossip, echoing whatever

they find in press releases. Hopefully our little experiment will make reporters and readers alike more skeptical.”

VETTING SOURCES

Reporting accurately and responsibly on scientific research or information can be challenging, and news venues certainly sometimes fail. Media entities—particularly non-journalistic enterprises—can be careless about vetting the sourcing of their information. Even established media outlets contend with issues of adequate resources to evaluate the legitimacy of the science or research they are covering. Most reporters, editors, bloggers, and, for lack of a better term, “reposters,” are not scientists and may not be personally equipped to vet research, reports, or sources.

Yet media outlets—newspapers, broadcast media, wire services, and the zillions of digital outlets—must do better in screening for the validity of the scientific or academic reports or research they consider covering. With so many independent information venues, the “echo chamber” effect is real. Blogs or nonprofit venues may pick up information and repeat it—sometimes with vetting, sometimes with none. And as in the traditional game of “telephone,” accuracy can be lost in the serial translations, and the information, understanding, and opinion that inform public policy are compromised, with potentially serious consequences.

Both the public and members of the media would do well to become more savvy and more conscientious, given the perils of the current information landscape. The American Press Institute offers a useful guide for determining the trustworthiness of media sources. Wendy Koziol, who works, ironically, for Public Communications, Inc. a private communications strategy and public relations company, nevertheless has sensible tips for journalists in her article, “Science or Scam: Vetting Credible Sources for Journalists.”



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