

Albert Einstein, Benjamin Franklin, and Carl Sagan) in the book, there is a valuable lesson for skeptics here: namely, *nullius in verba*: take nobody's word for it. O'Toole's work on the quotations he investigates is a model of skeptical inquiry. And it is a helpful reminder of the importance of investigating the opportunistic use of quotations by pseudoscientists, who often find that a quotation is a handy thing to have about, saving one the trouble of thinking for oneself—always a laborious business—and who often handle them incompetently or even unscrupulously.

For example, a quotation supposedly from Darwin—"Not one change of species into another is on record ... we cannot prove that a single species has been changed"—is in constant circula-

tion among creationists. But inquiry à la O'Toole reveals that the second half is attributable to Francis Darwin—a gloss on a letter of his father's from 1863—while the first half is attributable to the Harvard geologist Nathaniel Shaler circa 1902–1903, with the fusion and misattribution owing to the slapdashery of a Lutheran pastor, Theodore Graebner, writing in 1921. But the quotation persists, appearing, for example, in Dallas megachurch pastor Robert Jeffress's *Outrageous Truth* (2008).

Skeptics themselves ought to be careful with their own use of quotations. I have to confess my own sins here. In September 2005, writing in the Society for Sedimentary Geology's magazine, I encouraged geoscientists to become involved in efforts to defend the integrity

of science education by urging them to "bear the famous admonition of Margaret Mead in mind: 'Never doubt that a small group of thoughtful, committed citizens can change the world.'" *Mea culpa*: there is no evidence for Mead ever saying so, although the Institute for Intercultural Studies, founded by Mead in 1944, later took the quotation as its motto (and indeed registered it as a trademark). Do as I say, not as I do! ■

Glenn Branch is deputy director of the National Center for Science Education. He included six unattributed quotations in his review of *Hemingway Didn't Say That*. Can you identify them all?

FOLLOW UP

While Hurricanes Ravage the United States, Climate-Science Criticism Continues: An Exchange

The following letter is from a longtime member of the skeptical community who has for years strongly criticized climate science and the SKEPTICAL INQUIRER for reporting and defending it. Given the letter's topical nature in referring to the recent series of intense hurricanes that hit the United States, we are publishing it here together with responses by two noted scientists and climate experts, Michael E. Mann and Mark Boslough.

I thank the editor for publishing Norman Carlson's letter "Confusing Liberals and Skeptics?" (September/October 2017, p. 66). There has been an unhealthy paucity (if not absence) in SI of critical inquiry into politically "hijacked" issues such as climate change.

Having personally just dodged not a mere bullet but a bomb with Hurricane Irma, following on the heels of Harvey's record-breaking destruction elsewhere along the Gulf coast, I wish to make a few politically incorrect meteorological points.

Though touted as nearly unprecedented in its ferocity, Irma was comparable in strength to Andrew, Gilbert, Wilma, Allen, Patricia, the Labor Day hurricane of 1935, and no doubt many before that. Harvey was also nasty, but its devastating impact was largely due to a high-pressure system (the opposite of a storm) blocking its path northward for several days. Somewhat similarly, high pressure to the east of northern New England, acting like a "Road Closed—All Traffic Must Turn Left" barricade, caused a typical hurricane to merge with a typical nor'easter in 2012 and forced the

hybrid Superstorm Sandy westward into a vulnerable landscape at high tide, rather than allowing the storms to veer out naturally to sea.

It seems to me that critical, commonsense analysis of this sort with respect to “hijacked” issues such as climate change should be trumpeted in the pages of *SKEPTICAL INQUIRER* rather than marginalized in the “Letters” section (if published at all).

Gary P. Posner, MD
Tampa, Florida

Climate change deniers are basically asking us to ignore the symptoms. Only it's the entire planet, not a single human being, whose health is at dire risk.

Michael E. Mann replies:

Mr. Posner's letter, alas, yields little constructive insight into the science of climate change and hurricanes.

There are theoretical reasons to expect that the strongest storms will increase in intensity as sea surface temperatures increase, and this is indeed being observed. There has been a roughly 10 mph increase in maximum sustained winds among cat 4 and cat 5 storms for each 1° F of ocean warming, a roughly 7 percent increase. Since destructive potential goes as the wind speed raised to the 3rd power, it corresponds to a roughly 20 percent increase in damage. A warmer ocean surface means more moisture content and more rainfall with these storms, and global sea level rise has increased the coastal flooding associated with these storms.

Posner's letter provides an excellent example of what Carl Sagan called “special pleading”—one of the classics of logical fallacy—in this case by trying to explain away a clear trend through appeal to a sequence of special circumstances (“merged with a Nor'Easter,” “hybrid storm,” “high pressure system,” etc.). And in response to his dismissive argument that “we've seen strong storms before,” I would simply note that over the past two years when global sea surface temperatures have been at record levels, we've seen the strongest hurricanes (as measured by peak sustained winds) for the globe, both hemispheres, the Pacific, and now, with Irma, the open Atlantic. Perhaps Mr. Posner wants to explain that away

as a freak chance occurrence too.

Finally, since Mr. Posner is an MD, I pose the following question: Suppose a patient notices some issues with his health, goes to see a doctor and is told he's got a serious condition that requires immediate attention. He seeks a second opinion, third opinion, and after thirty-three consecutive doctors tell him the same thing, he finally finds a doctor with a contrary view who tells him “you're alright, don't worry about it.” What should he do? Seek treatment, or ignore the symptoms? Climate change deniers are basically asking us to ignore the symptoms. Only it's the entire planet, not a single human being, whose health is at dire risk.

Mark Boslough adds this additional response:

1) Posner uses the term *politically incorrect* to mean the opposite of its original meaning, which was applied to something that politicians and pundits don't want you to say. In fact, it is the climate scientists who are being politically incorrect by continuing to tell the truth about science against the wishes of those with more powerful voices: EPA Administrator Scott Pruitt's statement that now is not the time to talk about climate change, for example. Right-wing politicians and media often hijack words to mean the opposite of what they originally meant. Actual news is now called “fake news.” Deniers are called “skeptics.” “Entitled” now means “not entitled” (with the implication that people who are entitled to Medicare or social security are not actually entitled to them because they are called “entitlements”). By the way, I think the best way to fight back against the hijacking of the terms *politically incorrect*, *fake news*, and *skeptic* is just to continue to use them as they originally were used.

2) Similarly with his term *politically hijacked*, Posner seems to be blaming scientists for the politicization when we would like nothing more than our consensus to be accepted without political opposition. Purely scientific opposition is fine, and we can handle it, but it should be obvious to any neutral observer that it's not the scientists who have “politically hijacked” climate science. ■

Michael E. Mann is Distinguished Professor of Atmospheric Sciences and director of the Earth Systems Science Center at Penn State University. His books include *The Hockey Stick and the Climate Wars* and *The Madhouse Effect: How Climate Change Denial Is Threatening Our Planet*.

Mark Boslough is a physicist, recently retired from a leading national laboratory, who has long been active in organizing scientific discussions of climate issues. He is a member of the American Geophysical Union, among other scientific organizations, and a fellow of the Committee for Skeptical Inquiry.