



## Fact-Checking the Bill Nye-Marsha Blackburn Climate Change 'Debate'

*By Philip Bump*  
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If you are not the sort of person who watches *Meet the Press* (because you are not an old person), you may have missed Sunday's "debate" between Tennessee Rep. Marsha Blackburn and Mr. William Nye, Science Guy. Allow me to summarize: There is no actual debate over climate change. Allow me to summarize at greater length: Blackburn was full of misinformation and Nye seemed sleepy.

I pulled out the assertions presented by the participants in the discussion and evaluated them for truth. That's the point of a debate, right? To use facts to make a point? The *Meet the Press* conversation mirrored the climate change "debate" at large, which is far less a debate than a siege between people who will and people who will not accept the presented scientific facts.

Here's an example of how this will work. The segment, which [you can watch here](#), begins inauspiciously, with a quote from NBC weatherguy Al Roker.

### **Al Roker:**

Is it a natural cycle? Is it — is it due to human interference or human conditions that we have created? That remains open to debate. But there is no doubt the climate is changing.

### **Rating: False**

What Roker's doing here is what you might call skepticism-once-removed. He's too smart and too prominent to deny that climate change exists, but he also doesn't want to get nasty emails from people who hate the idea that anyone would say climate change exists. (I, however, [welcome such emails!](#)) So he walks a wishy-washy and incorrect middle road: climate change is real, but is it humanity's fault?

It is humanity's fault, at least according to the same scientists that say it is happening, which is nearly every climate scientist with only a few isolated exceptions. A survey of climate studies completed last year found that [97 percent of 4,000 studies](#) blamed human activity for warmer temperatures — more greenhouse gas emissions from fossil fuel-burning leading to more heat trapped in the atmosphere. Roker is wrong.

That was an error before the discussion even began, compiled when host David Gregory showed a snippet of a climate change denier from the Cato Institute, which was completely wrong. (He claimed that people lived more places which explained an increase in expensive disasters. Which doesn't explain [the big increase in such disasters in the U.S.](#))

So what did the guests have to say? After Blackburn reminded people that Bill Nye was "an engineer and actor," she insisted that they look at "the information that we get from climate scientists." Here are the show's other factual assertions, in chronological order.

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### **Blackburn:**

Even the president's own Science and Technology Office head Mister Holdren says no one single weather event is due specifically to climate change.

#### *Rating: True*

In fact, almost *every* scientist says that no single weather event is due to climate change specifically. Climate and weather are not the same thing: the former addresses long-term trends; the latter, short-term events. ([This video](#) offers a terrific visualization of the difference.) So while climate change will mean *more* of certain types of events — rainier storms, more ferocious hurricanes, more flooding — they themselves don't *prove* climate change. Blackburn's both responding to how Gregory framed the segment, using recent weather events as a news hook, but also intentionally trying to suggest that there's no link between weather and climate. Which, in the aggregate, there is.

Or, as Nye says in his rebuttal: "That you cannot tie any one event to that is not the same as doubt about the whole thing."

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### **Blackburn:**

And when you look at the fact that we have gone from 320 parts per million 0.032, to 0.040 four hundred parts per million, what you do is realize it's very slight.

#### *Rating: False*

Blackburn tries to downplay the amount of carbon dioxide in the atmosphere by talking about the amounts in very, very small decimals. Which they are: If I took \$400 versus \$320 out of your million dollars, you wouldn't be terribly upset.

But that's intentionally misleading. The difference between the two is an increase of 25 percent over the past 50 years — after thousands and thousands of years of it being lower. Last year, *The New York Times* [explained](#) that the level of carbon dioxide now in our atmosphere is a "concentration not seen on the earth for millions of years." And at that point, "the world's ice caps were smaller, and the sea level might have been as much as 60 or 80 feet higher."

Why hasn't that happened now? Because "it takes a long time to melt ice," as one scientist told the *Times*. But we're getting there.

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### **Blackburn:**

[T]here is not consensus [on climate change] and you can look at the latest IPCC Report and look at Doctor Lindzen from MIT. His rejection of that or Judith Curry ... from Georgia Tech. There is not consensus there.

#### **Rating: False**

This is just cherry-picking. Finding two people who disagree with the thousands of other scientists doesn't constitute debate any more than scoring a field goal when you're down 70 points makes the game a tie.

What's more, as MSNBC's Ned Resnikoff [points out](#), Blackburn didn't even pick very good cherries.

Blackburn cited two climate scientists to make her point: One who has been "[wrong about nearly every major climate argument he's made over the past two decades](#)," according to fellow environmental scientist Dana Nuccitelli, and another who recently said, "[it's clear that adding more carbon dioxide to the atmosphere will warm the planet](#)."

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### **Blackburn:**

[E]ven Director McCarthy from the EPA in answering questions from Congressman Pompeo before our committee, said reaching all of the 26 U.S. goals is not going to have an impact globally.

#### **Rating: Mostly true**

During the discussion between Kansas Rep. Mike Pompeo and EPA administrator Gina McCarthy (which [can be seen here](#)), McCarthy did say that the 26 steps the EPA would like to adopt to scale back America's greenhouse gas pollution wouldn't, in themselves, solve climate change. That's because other countries — like China — wouldn't be affected and would continue to pump out carbon dioxide and other greenhouse gasses.

But that doesn't mean that there would be *no* impact. If the American example of fighting emissions could serve as a model for other countries, it would have broader value. Fighting climate change is not something we can win by ourselves.

We didn't win World War II by ourselves either. It took multiple countries coming together to defeat the Axis threat. What McCarthy, the head of our environmental military, suggests is that we get on a war footing.

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**Nye:**

[W]hat I would encourage everybody to do is back up and let's agree on the facts. Would you say that the Antarctic has less ice than it used to?

*Rating: False*

Let's get this out of the way: Bill Nye looked tired. He was in California, and it was early, but there's no question this was not the perky Bill Nye that used to freak out at us in his science TV show.

That said, Nye simply misspoke. The Antarctic has not seen significantly less ice. As [I noted](#) last month, because there is land under Antarctica, its behavior is different than the ice in the Arctic. "[Antarctica] is losing continental ice while sea ice has been increasing by about 1 percent a decade," one scientist [explained](#) to *The Guardian*.

Nye *meant* to refer to the *Arctic*, where sea ice has continually been decreasing, to the point that it now serves as an effective shipping lane in summer months. How do I know he meant to refer to the Arctic? He held up a picture of the Arctic, as seen above. At some point, probably in the next decade, the Arctic will be ice-free during the summer. That's the fact Nye wants Blackburn to agree to.

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**Blackburn:**

Now, you know, when you look at the social cost of carbon, and there is a lot of ambiguity around that, what you also need to be doing is looking at the benefits of carbon and what that has on increased agriculture production.

*Rating: False*

Blackburn's main point — in fact, the main point of the Republican colleagues and of the fossil fuel industry at large — is that stopping climate change would be expensive. Which is largely true: It means that coal plants and heavy industry wouldn't be able to release greenhouse gasses into the atmosphere for free where the long-term costs would be borne by other people in the form of increased floods or droughts.

ThinkProgress did [a good job](#) rebutting the "CO2 is good for plants" schtick. While small amounts of the gas are critical for plants to grow, it points out that the California drought, almost certainly [exacerbated by](#) if not [entirely due to](#) climate change, has hardly been a boon for the state's agricultural centers.

The site also explains a bit more about the "social cost of carbon." That cost "is the formula used by federal regulators to calculate how carbon pollution harms public health, the environment, property value, and other issues" — and could be [as much as \\$129 per ton](#) by 2020 under some emissions scenarios.

Again, Blackburn claims there's ambiguity to the figure. In part that's because the cost varies depending on how much we keep emitting. If Blackburn and her colleagues accept a value for that "social cost," her cost-benefit analysis starts to work against polluters. After all, any cost to prevent the emission of carbon dioxide that's less than \$129 a ton (or whatever the final figure) becomes preferable under any cost-benefit analysis, even if it mandates regulation of the industry. And polluters and their advocates don't want to incur *any* additional cost, because it's bad for profits.

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**Nye:**

So the fewer very dirty coal-fired power plants we have, the better. The less energy we waste, the better. The less inefficient our transportation systems are, the better. The more reliable our electricity transmission systems are, the better.

*Rating:* **True**

If you want to fight climate change, you have to fight carbon dioxide and greenhouse gas emissions. And if you want to fight those emissions, you need to limit emissions from coal-burning power plants, the [main source of CO2 emissions](#). And you need to use less energy in general, reducing the need to burn coal to create electricity. You need to see less waste in the transmission process. It's a pretty simple calculus.

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**Blackburn:**

Bill doesn't like coal-fired electricity plants. You've got 1,200 that are coming up in other nations right now.

*Rating:* **True**

The World Resources Institute [released a report](#) in 2012 that articulated the upcoming boom in new coal plants — some 1,199 planned in 59 countries. In some cases, these are developing countries that are starting to see an emergent and energy-hungry middle class. In other cases, it's additional capacity in nations like China.

Blackburn's point from this is theoretically that we should look for a "way to achieve efficiencies" in coal-burning, which isn't really clearly explained in this context. But really she's undermining her own point: the issue of carbon emissions is only becoming more urgent, and the need to provide a disincentive for building those 1,199 plants more critical. Which Obama has proposed. In his climate change speech last year, the president [introduced](#) new policies aimed at making new coal-burning plants less economically appealing.

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**Blackburn:**

Carbon emissions are at the lowest they've been since 1994.

*Rating:* **False**

It's true that carbon emissions had been on the decline, hitting levels in 2012 that were the lowest in a long time, but in 2013 [emissions went back up](#). While increased efficiency, one of the factors Blackburn cites, did help keep emissions low, the two other big reasons emissions fell during recent years were the slower economy (resulting in less electricity use) and the natural gas boom from fracking (meaning less coal-burning). To keep emissions down, we would need to keep moving from coal to natural gas as an electricity source, which Blackburn doesn't want to do.

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**David Gregory:**

This debate goes on.

*Rating:* **False**

The debate is over. If *Meet the Press* covered the topic more — in 2013, according to [Media Matters](#), it failed "to offer a single substantial mention of climate change" — Gregory might know that.