

Climate Falsehoods

Most information relevant to arguments about climate is obtained at second, third, or fourth hand, with the result that what you believe depends largely on what sources of information you trust. People on either side of an argument can honestly believe that the evidence strongly supports their view since they trust different sources and different sources report different evidence. It is thus particularly interesting when on some point, even a fairly minor one, you can check a claim for yourself. Here is an example.

[Cook et. al. \(2013\)](#) is the paper, possibly one of two, on which the often repeated claim that 97% of climate scientists believe in global warming is based. [Legates et. al. \(2013\)](#) is a paper which criticizes Cook et. al. (2013). [Bedford and Cook \(2013\)](#) is a response to Legates et. al. All three papers are webbed.

Bedford and Cook (2013) contains the following sentence: "Cook et al. (2013) found that over 97% endorsed the view that the Earth is warming up and human emissions of greenhouse gases are the main cause."

To check that claim, look at [Cook et. al. 2013](#). Table 2 shows three categories of endorsement of global warming reflected in the abstracts of articles. Category 1, explicit endorsement with quantification, is described as "Explicitly states that humans are the primary cause of recent global warming." Category 2 is explicit endorsement without quantification. The description, "Explicitly states humans are causing global warming or refers to anthropogenic global warming/climate change as a known fact" is ambiguous, since neither "causing" nor "anthropogenic global warming" specifies how large a part of warming humans are responsible for. The example for the category is clearer: 'Emissions of a broad range of greenhouse gases of varying lifetimes contribute to global climate change.' If human action produces forty percent of warming it contributes to it, hence category 2 does not specify how large a fraction of the warming humans are responsible for. Category 3, implicit endorsement, again uses the ambiguous "are causing," but the example is '...carbon sequestration in soil is important for mitigating global climate change,' which again would be consistent with holding that CO₂ was responsible for some but less than half of the warming. It follows that only papers in category 1 imply that "human emissions of greenhouse gases are the main cause." Authors of papers in categories 2 and 3 might believe that humans were the main cause, they might believe that they were one cause among several.

Reading down in Cook et. al., we find "To simplify the analysis, ratings were consolidated into three groups: endorsements (including implicit and explicit; categories 1–3 in table 2)." It is that combined group, ("endorse AGW" on Table 4) that the 97.1% figure refers to. Hence that is the number of papers that, according to Cook et. al., implied that humans at least contribute to global warming.

The [data file](#) for Cook et. al. (2013) is webbed. The number of articles classified into each category is:

Level 1 = 64

Level 2 = 922

Level 3 = 2910

Level 4 = 7970

Level 5 = 54

Level 6 = 15

Level 7 = 9

The 97% figure was the sum of levels 1-3 as a fraction of the total for all levels except level 4, abstracts that expressed no opinion as to whether humans were a cause of warming.

That 97% breaks down as:

Level 1: 1.6%

Level 2: 23%

Level 3: 72%

Only Level 1 corresponds to "the Earth is warming up and human emissions of greenhouse gases are the main cause." It follows that the sentence I quoted from Bedford and Cook is false. Cook et. al. did not find that "over 97% endorsed the view that the Earth is warming up and human emissions of greenhouse gases are the *main* cause." (emphasis mine). He found that 1.6% did. It is possible, indeed likely, that more do, but that was not what the article found.¹

In online exchanges on climate I have repeatedly encountered the claim that 97% of climate scientists believed humans were the main cause of global warming. Cook et. al. appears designed to encourage that misreading by lumping together categories 1-3 and reporting only the sum. It repeatedly refers to "the consensus" but the closest it comes to defining that is as the "position that humans are causing global warming," which leaves it unclear whether "causing" means "are one cause of," "are the chief cause of," or "are the sole cause of." To discover that it meant only the former a reader had to pay sufficiently careful attention to the details of the paper to notice the examples for categories 2 and 3, which few readers would do.

The fact that Cook chose, in the second paper, to misrepresent the result of the first is good evidence that the presentation of his results was deliberately designed to mislead, since he surely knew the contents of his own paper. Hence the sentence in question is a deliberate lie, a fact that any interested reader can check by simply comparing the two papers of which Cook is a co-author, both webbed.

That Cook misrepresents the result of his own research does not tell us whether AGW or CAGW is true. It does not even tell us if it is true that most climate scientists endorse AGW or CAGW. But beliefs on either side depend largely on what sources of information you trust. I have now provided unambiguous evidence, evidence that anyone who is willing to carefully read Cook (2013) and check what it says against what Bedford and Cook claims it says can verify for himself, that John Cook is willing to deliberately lie in print about his own work.

The blog *Skeptical Science* lists John Cook as its maintainer, hence all claims on that blog ought to be viewed with suspicion and accepted only if independently verified. Since, as a prominent supporter of the position that warming is primarily due to humans and a very serious threat, Cook is taken seriously and cited by other supporters of that position, one should reduce one's trust in

¹ Adding up categories 5-7, the levels of rejecting of AGW, we find that more papers explicitly or implicitly rejected the claim that human action was responsible for half or more of warming than accepted it, according to Cook's own data.

those others as well. Either they too are dishonest or they are willing to believe false claims, in this case provably false, that support their position.

That one prominent supporter of a position is dishonest does not prove that the position is wrong; there may be people on the other side who could be shown to be dishonest by a similar analysis. But it is a reason why those who support that side because they trust its proponents to tell them the truth should be less willing to do so.

In Chapter XXX I offer a second example of flatly false statements made in support of the current climate orthodoxy. It is a textbook not a much-quoted article and its falsehoods may be not deliberate lies but the result of the author believing claims that fitted his views without bothering to check whether they were true. But it is a textbook that has been through three editions and its author is prominent in public discussions of climate issues, so the fact that its false claims are still there after ten years is evidence that the relevant community does a poor job of separating true claims from false claims that support their views.

Cook's Response

John Cook eventually responded to my criticism, not on my blog but on the [comment thread](#) of one that linked to mine. He wrote:

As lead author of the Cook et al consensus paper, I can demonstrate how David Friedman ginned up a false contradiction by quoting me out of context. Here is the full line from the Bedford & Cook paper:

Of the 4,014 abstracts that expressed a position on the issue of human-induced climate change, Cook et al. (2013) found that over 97 % endorsed the view that the Earth is warming up and human emissions of greenhouse gases are the main cause.

To generate the 'contradiction', Friedman omits the first portion of the sentence:

Cook et al. (2013) found that over 97 % endorsed the view that the Earth is warming up and human emissions of greenhouse gases are the main cause.

I agree entirely with the OP's assertion of checking what writers say and see what their statements are based on. In this case, Friedman's criticism is based on misrepresentation of my original text. I find it extraordinary that Friedman accuses me of a deliberate lie while misquoting my work (deliberately? You decide). It is also ironic that a theme of this post is checking writing for falsehoods while uncritically repeating his misrepresentation.

That would be a legitimate response if my criticism had been of the fact that his 97% figure ignored the roughly two-thirds of papers that took no position on AGW. But, as you can easily check from the [blog post](#) where I originally raised the issue, that was not what I objected to. My objection, there as here, was that the 97% figure lumped together categories 1-3 when only category 1 fitted Cook's "main cause." Cook indignantly responded to a criticism I did not make, ignored the criticism I did make, and offered a defense entirely irrelevant to my criticism.

That left me with a puzzle — is he a rogue or a fool? was he trying to mislead careless readers who, by the time they had gotten to his response, had forgotten what my criticism was, or readers sufficiently committed to his side that they would assume what he wrote was true without

bothering to check either my post or David Henderson's account of my argument? Alternatively, is he so incapable of reading and understanding criticism that he confused the point about the two thirds who expressed no opinion, raised by David Henderson in his piece commenting on mine and earlier by Legates et. al., with my argument which David Henderson accurately reported? Is he somehow unaware of the trick he himself pulled by pooling the three categories and reporting only the sum? It seems hard to believe.

One piece of evidence in favor of the rogue theory is that he posted his response on David Henderson's blog instead of mine, making it less likely that readers of it would have read my post. One piece of evidence in favor of the alternative is that he offered a transparently fraudulent rebuttal to my argument instead of remaining prudently silent.

It is not surprising if there are some dishonest people on one side, or the other, or both of the climate controversy. A more interesting question is whether there are any honest people. Are there any prominent supporters of the need for strong action to prevent warming who have publicly rejected Cook et. al. 2013 or its author?

The closest I have found is Richard Tol, a Dutch economist who was one of the IPCC authors and who has webbed his own [criticisms](#) of Cook et. al 2013. Tol, however, has also published estimates of the cost of warming that show it as negative at low levels and positive but not catastrophic at high; he eventually resigned from the IPCC in protest against some of its positions. Although he almost certainly believes that warming is real and in large part anthropogenic, as do I, he cannot be counted as clearly on Cook's side of the argument. If there is anyone who can who has pointed out that Cook's claim in the second paper is a flat lie, I have not found him.

The same question can be asked of the other side. Are there prominent articles criticizing the campaign to prevent warming that are clearly dishonest, clearly enough so that someone with no commitment to either side of the controversy would recognize them as such? If so, have they been publicly rejected by anyone on that side? When I put that question on my blog [Commenters](#) offered several, such as Jim Manzi pointing out on *National Review* that a book by Mark Levin offered arguments against anthropogenic warming that were obvious nonsense. That does not, however, tell us whether there are other clear falsehoods on that side that do not get criticized.

1.6%→97%: Hasenpfeffer

Diner: "Waiter, it says hasenpfeffer on the menu. Is it really rabbit?"

Waiter: "Yes, sir."

Diner (suspicious): "All rabbit?"

Waiter: "There's a little veal in it too."

Diner (still suspicious): "How much veal?"

Waiter: "Fifty-fifty."

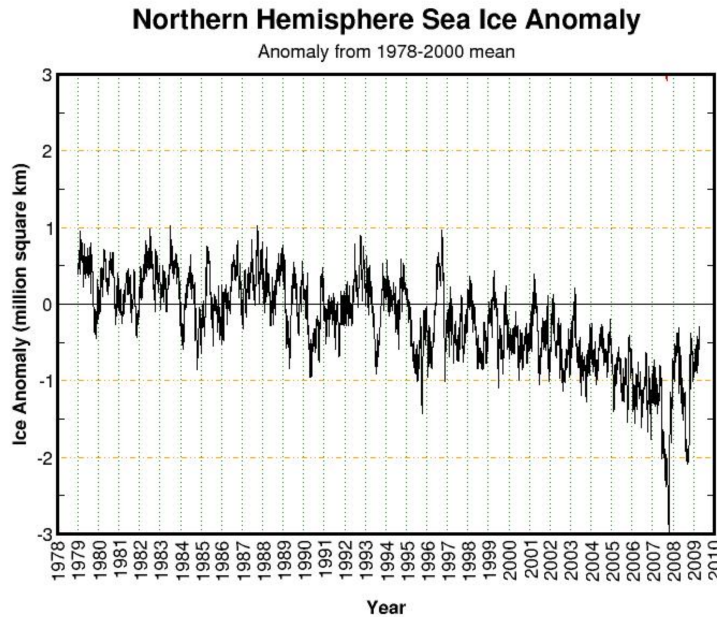
Diner: "Fifty-fifty? Just what does that mean?"

Waiter. "Fifty-fifty. One of each."

Global Sea-ice, False facts and Truthful Lies

[The latest Arctic sea ice data from NASA and the National Snow and Ice Data Center show that the decade-long trend of shrinking sea ice cover is continuing.](#)²

That statement from the JPL was dated April 2009. The data for northern hemisphere sea ice when the statement was made, measured as the deviation from its 1978-2000 mean, are shown below. The source is "[The Cryosphere Today](#)," a web site of the Polar Research Group, Department of Atmosphere Sciences, University of Illinois at Urbana-Champaign.



Looking at the graph, the pattern is pretty clear. For about ten years, from 1997 to late 2007, the area of sea ice was decreasing. That trend then reversed. By April of 2009 the area had been flat to increasing for more than a year.

Reading further in the article, one finds: "that this winter had the fifth lowest maximum ice extent on record. The six lowest maximum events since satellite monitoring began in 1979 have all occurred in the past six years (2004-2009)."

That is a nice example of how to lie while telling the truth. The trend had reversed — whether temporarily or permanently we did not know then, although it eventually turned out to be only temporary. But since the area of sea ice had been trending down for a decade and had only recently started to trend up, it was still low relative to the past — but not the recent past, which was what was relevant to whether the [latest data](#) showed the trend was continuing.

When I pointed out the inconsistency between what the JPL said and what the data showed on my blog none of the commenters managed to explain it away³ so I emailed someone at NASA. He was a pleasant and courteous correspondent but seemed unable to distinguish between the question "do we have reason to expect arctic sea ice to continue to shrink" and the question "is what JPL said on this page about the evidence true?" Eventually he conceded that he was a media person not a

² My images here are from the Internet Archive, since the pages are no longer up.

³ The argument can be found in the comments to my [blog post](#). Readers are invited to form their own opinion of them.

scientist, sent my question off to a scientist at the National Snow and Ice Data Center (NSIDC), and sent me the response.

That response again ignored the question of whether what JPL said was actually true to focus on whether the conclusion they were arguing for was true. I emailed him, pointing out that what I was asking was not whether there was good reason to expect further shrinking but whether the JPL assertion about the current data was true or false. I wrote:

I don't dispute your basic argument — that there is good, although not certain, reason to think arctic sea ice is decreasing and will continue to decrease.

But I don't think you are paying adequate attention to two related problems — keeping scientists honest and convincing non-scientists (or scientists in other fields) that they are honest. In any field scientists have substantial reasons to bias their results in response to funding pressures, in response to the natural human desire to believe that one's own theories are correct, in response to professional pressure from colleagues, friends, influential superiors, The more unified a profession is, the more nearly everyone depends on the same or closely related funding sources, wants the approval of the same high status colleagues, the less these problems are eliminated by competition among scientists.

Given these problems, I think it is very important to maintain a norm of honesty. That doesn't just mean being honest about your conclusions, it includes being honest about the data that supports them — or doesn't. That norm ought to be enforced by severe sanctions, whether social or administrative, on scientists who deliberately misrepresent the data in ways that support the positions they want to support.

Publicly stating that the latest evidence supports a theory when the latest evidence is (weak) evidence against that theory is dishonest. People who act that way ought to be pointed out and criticized, not defended on the grounds that, even with that evidence, there is still good reason to think the theory is true. (From my email to him, with a few surplus commas removed.)

I got back an answer that came down to (not a quote) "the long-term trend is down, so objecting that JPL says the current data shows that trend continuing when it doesn't is merely a technical semantic objection."

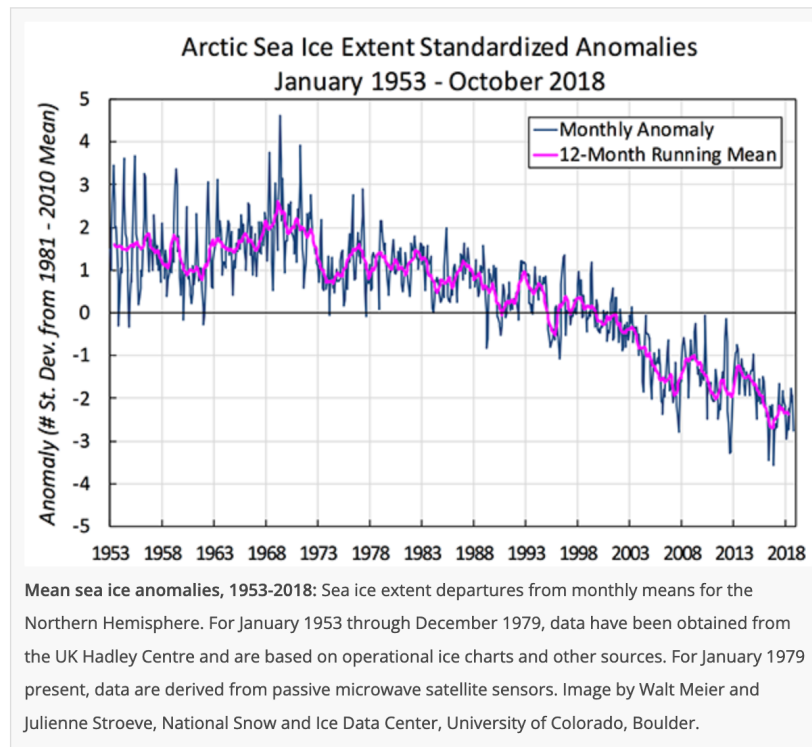
I concluded that he, unlike the gentleman at NASA, understood my question, that his real answer was that it was all right to lie to people about the evidence as long as you were telling them what you thought was the truth about the conclusion. I sent him off a reference to the Orwell [piece](#) that discusses the dangers of suppressing the truth for fear that it would "play into the hands of" the opposition.

I have no evidence that this incident was, like the previous one, a case of deliberate fraud; the original misstatement may have been a careless mistake. What was disturbing was the unwillingness to admit it.

Out of curiosity, I checked back a few months later on the NSIDC [web page](#), and found

The 2009 minimum is the third-lowest recorded since 1979, 580,000 square kilometers (220,000 square miles) above 2008 and 970,000 square kilometers (370,000 square miles) above the record low in 2007.

Or in other words, the extent of arctic sea ice had been increasing for the last two years. The NSIDC emphasized the fact that it was still below its long term level but told the truth about the facts. For any reader curious about what actually happened to sea ice extent, the graph below [from the NSIDC](#) shows that it continued to trend down, with occasional reverses.



The most interesting thing about the episode, for me, was the unwillingness of both the NSIDC scientist and many of the commenters on my blog to concede that what was on the JPL web page was false. It came across very strongly as a disagreement based not on substance but on tribal loyalty. It was very much the same impression I got over responses to my blog post on Cook et. al. 2013. There too the simple facts seemed to be unambiguous, based on evidence readily available to all of us, but people who did not wish to believe a fact chose not to.

I expect there are similar cases on the other side of climate controversies, or other controversies where beliefs are linked to group identification.⁴ One candidate would be the belief of a considerable fraction of the Republican party that Trump really won the 2000 election, but that is not quite equivalent. In both of my cases the relevant evidence can be directly checked by the individual. In that case the evidence available to the average Trump voter is second hand, from news media, judicial decisions, and the like; someone who distrusts those sources of information can ignore it.

I recently encountered a better candidate on FaceBook. I put up a [post \[check if this still works\]](#) pointing out that a particular argument by Ludwig Von Mises was obviously wrong, wrong

⁴ For the general issue see the discussion of Dan Kahan's research in Chapter XXX.

in terms of his economic theory as well as mine. Some people who appeared to be supporters of his general (“Austrian”) approach agreed that this particular argument was wrong, but a number did not. In some cases they may have been unable to follow the argument but in some it seemed clear that the reason was that they did not like the conclusion, saw it as a question not of economic logic but of tribal loyalty. In that case, unlike the Trump election claims, verifying the argument did not require them to trust anyone, merely to follow the logic of the argument.

My guess is that Mises himself, if the mistake had been pointed out to him, would have agreed that what he wrote was wrong, perhaps explained it as a careless misstatement of a different and correct argument.