

## Reading Techniques

You might be taken aback by what I am about to say, but I believe that the climate crisis is in part due to the fact that, generally speaking, the American (US) public lacks good reading skills.

As I am an English professor, perhaps this statement doesn't, in fact, surprise you. Still, it may seem that this crisis is being caused by a range of factors, such as the rise of atmospheric CO<sub>2</sub> and other greenhouse gases, that have little to do with reading and hence should be studied by scientists, not humanities professors like me.

Well, the climate crisis is certainly being caused by a significant and altogether worrisome rise in global greenhouse gas emissions. I certainly wouldn't deny that. But where are these emissions coming from? Obviously, from a range of human activities, such as driving cars with internal combustion engines that, on average, emit about one pound of CO<sub>2</sub> for every mile that you drive (something to think about...).

In this sense, the root problem is human behavior. It's simple enough: if we didn't drive and do a host of similar activities, there would be few greenhouse gas emissions caused by human beings. No emissions, no problem.

Since emitting greenhouse gases is causing a problem, likely the greatest problem that humanity has ever collectively faced, why don't we just stop engaging in activities that do so, like car use?

Part of the problem - a big part of the problem - is that not all people (including, and in many respects especially, US citizens) are convinced that greenhouse gas emissions are a significant problem, let alone at a crisis level.

So, how is this possible, when scientists have been telling us for decades that rising levels of greenhouse gases in the atmosphere are unequivocally a problem, and a huge one, that threatens the nearly every aspect of human life? For example, James Hansen, a NASA scientist, who testified before Congress in 1988 (where he was introduced as a "climate hero") that "[i]t's time to stop waffling so much" and act on the climate problem.

Hansen was hardly the first scientist to draw attention to the problem, as others had been doing so for decades. However, Hansen made it front page news - literally. as the New York Times ran an article on it's the front page in June of 1988 entitled "Global Warming Has Begun, Expert Tells Senate."

Since 1988 (and even slightly before), many Americans have encountered literature, often financed by the fossil fuel industry, that denies the severity of the crisis. Hence, the problem is not with the science or the fact that the public has not been informed of a problem, but rather the issue is that, when faced with a variety of material, a broad swath of the public is confused - which, of course, is why the fossil fuel affiliates commissions this material to be written.

The challenge, then, is honing the necessary skills to read through to the truth, which can sometimes be surprisingly difficult. There are a number of tips that can help sharpen the skills.

### Tips for Reading Actively (Part 1)

Let's consider some initial things to keep in mind when actively approaching a text.

While it may seem that this sort of investigative digging is not something that we normally do in literary analysis, it is in fact one of its cornerstones. For example, knowing that the author of a Victorian novel was an outspoken racist or misogynist can be of great help in approaching the text. Conveniently, literary scholars have already done much of this work for many of the texts that we read in literature programs. In the case of the works for this class, however, this obligation falls to you, as you will often be taking on the role of lead critical reader.

Here are five things to initially consider:

For each of these, we will take *Why Scientists Disagree About Global Warming*, which is available as a free [PDF download](#), as an example.

1) Author. What do we know about the author or authors of a text? While it can only take a minute (literally) to do an online search to learn about a person, the results can be revealing. Do they have expertise in the area? What are their credentials? Do they seem credible? What else have they written? Where have their other texts appeared? What are their affiliations (groups or companies with which they may be involved)? Are they funded? If so, by whom? Finally, do we even know the author? If not, then many of these questions can be addressed to the publication venue.

The chief author of *Why Scientists Disagree About Global Warming* is S. Fred Singer, who died in 2020 at the age of 95. Although Singer had a PhD in physics and was a university professor in the 1950s, he 1) was not a research scientist, 2) was not a climate specialist, and 3) never did any research in the field.

His main claim to fame was that he was an early proponent of launching satellites for a scientific investigation, including into weather systems, in the 1950s. Although having a PhD and having once been involved with the weather satellites may make it seem as if Singer has expertise in climate science, this is simply not the case.

Moreover, at least as early as the 1980s, Singer began to (I am quoting [The Washington Post](#) here) to “denigrate other scientists who warned the public about secondhand smoke, greenhouse gas emissions, acid rain and the dangers of a steadily warming climate. ‘It’s all bunk’... ‘Stop worrying, don’t worry’... ‘Nothing you do will have any effect on the carbon dioxide level in the atmosphere. Even if it did have an effect, it won’t affect the planet.’”

Even a cursory look into Singer reveals that, although he held a PhD, he had no expertise in the field of climate science. Moreover, it is obvious that he was seemingly a paid contrarian hired by the tobacco industry, electrical utilities, fossil fuel industry, and so forth.

If you take the time to research Singer further, you will find a great deal of material questioning his credibility. One of the most interesting is the book *Merchants of Doubt: How a Handful of Scientists Obscured the Truth on Issues from Tobacco Smoke to Climate Change*, which considers Singer in some detail.

In short, although *Why Scientists Disagree About Global Warming* presents Singer as a credible and unbiased expert in the field climate science, he is neither.

2) Publication. What do we know about the place (periodical, website, publishing house, etc.) where the text appeared? As with learning about the author, a quick online search can be eye-opening. For example, is a publication or website sponsored by, or affiliated with, a particular group or organization (as this can be somewhat unclear, you might have to do some investigative digging)? If sponsored, does the sponsor have a vested interest in this subject? What other sort of texts does the venue publish? Is there anything that links the various texts that appear from this publisher? What do you know about the reputation of the publication? For example, while both the *Wall Street Journal* and *Los Angeles Times* are major newspapers, the former is generally politically conservative while the later tends toward the liberal.

*Why Scientists Disagree About Global Warming* was published by an organization called the Heartland Institute. As Wikipedia notes, “The Heartland Institute is an American conservative public policy think tank founded in 1984...The institute conducts work on issues including education reform, government spending, taxation, healthcare, tobacco policy, global warming, hydraulic fracturing, socialism,” and so forth.

In practice, the Heartland Institute has spent many years and many millions of dollars both denying that second-hand smoke has health hazards and that the climate crisis is real, while also sounding the alarm regarding the rise of socialism in the United States. Regarding funding, “[o]il and gas companies have contributed to the Institute.” They have also “received funding and support from tobacco companies” and a range of other sources, including the Koch brothers and General Motors.

In other words, the Heartland Institute exists in part to protect the interests of tobacco companies, fossil fuel affiliates, and other industries. A 2012 leak of Heartland documents revealed that the Institute pays a variety of climate change deniers, including the above-mention Fred Singer, who was paid “\$5,000 plus expenses per month.”

It is clear that the Heartland Institute obviously has a vested interest in promoting climate change denial.

Alternately, if *Why Scientists Disagree About Global Warming* had been published by a mainstream press, such as Penguin or a Doubleday, it would be a far more credible publication. As it stands, since the Heartland Institute is in part being funded by the fossil fuel industry and is

in turn funding the creation of climate change denial literature, it is simply not a credible source for unbiased information on the climate crisis.

3) Audience. Most authors (and publications) have an imagined audience, which is the group that they both imagine will read them and hope will be moved in some way by what they read. Speculate, what is the imagined audience of the text at hand? Does it seem likely to influence this group? Why or why not? Specifically, how is the text vectored toward this audience?

The Foreword to *Why Scientists Disagree About Global Warming* begins with this statement: “President Barack Obama and his followers have repeatedly declared that climate change is ‘the greatest threat facing mankind.’ This, while ISIS is beheading innocent people, displacing millions from their homeland, and engaging in global acts of mass murder. If it weren’t so scary, it would be laughable.”

From this and a range of similar statements, it is clear that the intended audience here are individuals who would likely self-identify as conservative. After all, I doubt that President Obama’s “followers” (i.e. Democrats and liberals) would react very favorably to the above statement.

So, it seems clear that *Why Scientists Disagree About Global Warming* is aimed at an audience that likely is already skeptical of climate science, if not taking a position of downright denial. The purpose of the book, then, is to confirm and deepen this belief.

However, as the Foreword reveals, an added aim is to solidify this as a political issue. As the Foreword notes, the climate crisis “is a very important issue nonetheless for anyone concerned about individual freedom and protecting our way of life. The alarmist view, advocated by the Obama administration and environmental extremists, influences virtually every public policy, including the kind of light bulbs we may purchase, the type of cars we may be able to drive, where we live, and the types of jobs we may create or are available for us or our children to perform.”

In other words, according to this view, action on the climate crisis will negatively and severely impact each of us as Americans.

If this book was intended for an audience that was seriously concerned about the climate crisis as an environmental issue, it is doubtful that they would be convinced that this was, in fact, an issue regarding “individual freedom and protecting our way of life.”

4) Supervision. Has the text been vetted in any way? For example, major publication houses employ seasoned editors to carefully scrutinize books before publication. Major newspapers do the same and go one step further by having fact-checkers carefully research each article's claim and reference. Similarly, scholarly texts are generally peer-reviewed before appearing in print. In contrast, many blogs are entirely written by a single person without any oversight.

In many respects, the gold standard for the supervision of a publication is set by academic presses. In this case, nothing is published before it is carefully reviewed by a series of experts in the field. This is process known as “peer review.”

Hence, when you pick up a book or journal published by an academic press, you should have a good deal of confidence in the credibility of what is being said, as the reputation of the press hinges on it.

Similarly, if you pick up a major newspaper, such as *The Los Angeles Times* or *The Washington Post*, you can generally be confident in what is being said, as the reputation of the paper is at stake. If something turns out to be incorrect or not factual, these publications will always publish a retraction. If it is a major problem, people could (and have) be Lost their jobs over something like this.

In the case of *Why Scientists Disagree About Global Warming*, there is no oversight whatsoever, other than what might be provided by the publisher, which is the Heartland Institute. Given that, as we have noted, the Heartland Institute is in the business of defending businesses, like the tobacco, oil, gas, and coal industries, there is little reason to believe that the publication received careful supervision. In other words, there is little reason to believe that claims being made were factual and correct. This is especially apparent, as many the claims made in the book are misleading or simply incorrect.

5) References. Does the author(s) supply a list of references or refer to other works? Are the references credible? Who are the authors of these references and where do they appear? Are the references appropriate? In other words, does the reference in fact support what the author claims? Authors will sometimes reference a very credible source but it may have little or nothing to do with their argument. As with the author and publication, some digging into the references may be necessary.

Let’s again take *Why Scientists Disagree About Global Warming* as an example. The introductory chapter of this volume contains nine references. Four of these works are either published by the Heartland Institute, or appear on the Heartland Institute’s website. The Heartland Institute is, of course, the conservative think tank that published *Why Scientists Disagree About Global Warming*. And such, it is hardly a credible source.

Three of the references are to undeniably credible sources, the IPCC (the Intergovernmental Panel on Climate Change), NASA, and American Academy for the Advancement of Science (AAAS). However, the IPCC is cited in order to label it as an “alarmist” group. NASA and the AAAS are cited because they support the claim that “97 percent of scientists agree” the climate crisis is real, which is something that this book purports to disapprove. Hence, none of these sources, in any way, back the claims made in this chapter.

Finally, an article entitled “The myth of the climate change ‘97%’” is cited from *The Wall Street Journal*. Although this may seem like a credible, mainstream publication, in recent years *The Journal* has come under fire for publishing op-eds, like the one referenced in *Why Scientists Disagree About Global Warming*, that are essentially propaganda serving fossil fuel interests.

For example, *The Guardian*, a respected media outlet, published an article entitled “*The Wall Street Journal keeps peddling Big Oil propaganda.*”

Consequently, although this chapter from *Why Scientists Disagree About Global Warming* may give the appearance of being well referenced and supported, it merely gives the appearance of being such, as no credible sources are given that support the claims made in the chapter. The three credible sources that are referenced (the IPCC, NASA, and the AAAS), all strongly disagree with the argument made.

### Tips for Reading Actively (Part II)

Authors can use a variety of different techniques and appeals to sway or influence readers. Here are ten to be on the lookout for:

1) *Commonsense*. Be wary of appeals to commonsense when not supported by facts. An example would be the argument that because meteorologists cannot accurately forecast weather even a week or two in advance, it therefore follows that attempting to predict climate change decades in the future is simply impossible. Even a cursory look into the subject reveals that climate modeling and meteorology are separate fields with completely different methodologies and results. As a careful reader, your job is to look into such facts.

2) *Logic*. Be careful not to be swayed by logical fallacies, such as confusing correlation for causality. For example, most children in the US. showing signs of autism have received a series of disease immunizations. This simple correlation does not prove that these immunizations are the cause of autism. In fact, study after study has shown that immunizations are in no way causally related to autism. Instead, this is just a random correlation.

3) *Emotion*. Authors will often make appeals to emotion as much as they do to logic and reason. Is this being done? Why? What is gained? How, exactly, are emotions being leveraged by the author?

4) *Facts*. An author will often make a number of statements of fact. Are they, in fact, facts? How do you know? Can they be corroborated? A little online searching should reveal if they are accurate or not.

5) *Inclusions*. Why has the author(s) included what they have? Do the inclusions all line up in support of the author's position? If so, it may suggest that they are being cherry-picked in order to support the position.

6) *Emphasis*. Related to what an author includes is what they emphasize. How and why has the author emphasized what they have? Specifically, what do they gain by this maneuver?

7) *Omissions*. What has the author(s) omitted? In some cases, omissions can be glaring. Often, however, it will again require some digging to find what the author desires to keep in the dark.

8) *Downplaying*. Related to omissions, authors will sometimes mention a glaring issue only to downplay its significance. What is the author downplaying and why? Is this maneuver successful?

9) *Misdirection*. Is the author staying on point or directing you to something else? In the case of *Why Scientists Disagree About Global Warming*, why is the discussion focusing on socialism in the United States rather than the climate crisis? What is gained by this distraction?

10) *Conspiracy*. Be cautious of conspiracy and other oddball theories that help make an author's case. For example, the notion that climate change is a hoax perpetrated by China in order to become more competitive in the world market. This theory has no factual support. For example, it has never been shown that China is either directly producing climate change denial literature or is funding it indirectly. To the contrary, the primary producers of this literature are conservative US. groups that generally take a strong stand against China.

The simple fact is that effective reading is active reading. Simply accepting what a text says without questioning it can lead to disaster with something as crucial as the climate crisis. Careful reading takes time. However, when something important - like the Earth remaining hospitable and welcoming for our species - hangs in the balance, it is imperative that you read well.