All scientists are skeptics. The motto of The UK's Royal Society — "the world's oldest scientific academy in continuous existence," founded in 1660 — is "Nullius in verba" — Latin for "On the words of no one" or "take nobody's word for it." It is "*an expression of its enduring commitment to empirical evidence as the basis of knowledge about the natural world*."

Long-time Climate Progress Guest blogger Dr. John Cook has a post at *The Drum* that examines the difference between real skeptics and the climate science deniers, who claim to be skeptics. Cook is the founder of the must-read site *Skeptical Science* and co-author of *Climate Change Denial*.

In the charged discussions about climate, the words skeptic and denier are often thrown around. But what do these words mean?

Consider the following definitions. Genuine skeptics consider all the evidence in their search for the truth. Deniers, on the other hand, refuse to accept any evidence that conflicts with their pre-determined views.

So here's one way to tell if you're a genuine skeptic or a climate denier.

When trying to understand what's happening to our climate, do you consider the full body of evidence? Or do you find the denial instinct kicking in when confronted with inconvenient evidence?

For example, let's look at the question of whether global warming is happening. Do you acknowledge sea level rise, a key indicator of a warming planet, tripling over the last century? Do you factor in the warming oceans, which since 1970 have been building up heat at a rate of two-and-a-half Hiroshima bombs every second? Glaciers are retreating all over the world, threatening the water supply of hundreds of millions of people. Ice sheets from Greenland in the north to Antarctica in the south are losing hundreds of billions of tonnes of ice every year. Seasons are shifting, flowers are opening earlier each year and animals are migrating towards the poles. The very structure of our atmosphere is changing.

We have tens of thousands of lines of evidence that global warming is happening. A genuine skeptic surveys the full body of evidence coming in from all over our planet and concludes that global warming is unequivocal. A climate denier, on the other hand, reacts to this array of evidence in several possible ways.

The most extreme climate denier won't even go near the evidence. He or she avoids the issue altogether by indulging in conspiracy theories. They'll pull a quote out of context from a stolen 'Climategate' email as proof that climate change is just a huge hoax. I have yet to hear how the ice sheets, glaciers and thousands of migrating animal species are in on the conspiracy, but I'm sure there's a creative explanation floating around on the Internet.

The hardcore denier, firmly entrenched in the "it's not happening" camp, denies each piece of evidence. When confronted by retreating glaciers, his or her thoughts flick to the handful of growing glaciers while blocking out the vast majority of glaciers that are retreating at an accelerating rate.

Deniers ignore sea level rise by focusing on short periods where sea levels briefly drop before inevitably resuming the long-term upward trend. The key to this form of denial is cherry picking. If you stare long and hard enough at a tiny piece of the puzzle that gives you the answer you want, you find the rest of the picture conveniently fades from view.

Some climate deniers have found it impossible to ignore the overwhelming array of evidence that the planet is warming (cognitive bias does have its limits) and moved onto the next stage of denial: "it's happening but it's not us". After all, climate has changed throughout Earth's history. How can we tell it's us this time?

The answer, as always, is by surveying the full body of evidence. Warming from our carbon dioxide emissions should yield many tell tale patterns. We don't need to rely on guess work or theory to tell us humans are causing warming. We can measure it.

If carbon dioxide is causing warming, we should measure less heat escaping to space. Satellites have observed this, with heat being trapped at those very wavelengths that carbon dioxide absorbs radiation. If less heat is escaping, we should see more heat returning to the Earth's surface. This has been measured. Greenhouse warming should cause the lower atmosphere to warm but simultaneously, the upper atmosphere to cool. That's indeed what we observe is happening.

As far back as the 1800s, scientists predicted greenhouse warming should cause nights to warm faster than days and winters to warm faster than summers. Both predictions have come true. Everything we expect to see from greenhouse warming, we do see.
We have, as science historian Naomi Oreskes aptly puts it, "multiple, independent lines of evidence converging on a single coherent account". This consensus of evidence is the reason why we have a consensus of scientists with 97 out of 100 climate experts convinced that humans are driving global warming.

So which camp do you fall in?

Do you look at the full body of evidence, considering the whole picture as you build your understanding of climate? Or do you gravitate towards those select pieces of data that, out of context, give a contrarian impression, while denying the rest of the evidence?

Even for those of us who accept the scientific consensus, there is a more insidious form of denial – accepting that humans are causing climate change, but choosing to ignore it. Governments deny the implications of global warming when they make lots of noise about climate change but fail to back their words up with action. When we let politicians get away with inaction, we let denialism prosper.