



This is the print version of the [Skeptical Science](#) article '[500 scientists refute the consensus](#)', which can be found at <http://sks.to/500>.

Do 500 scientists refute the consensus?

What The Science Says:

Close inspection of the studies alleged to refute man-made global warming finds that many of these papers do no such thing. Of the few studies that do claim to refute man-made global warming, these repeat well debunked myths.

Climate Myth: 500 scientists refute the consensus

"According to a report in the WorldNet Daily, more than 500 scientists have published evidence refuting the current man-made global warming scare, according to a new analysis of peer-reviewed literature by the Hudson Institute." ([American Conservative Daily](#))

The latest attack on global warming consensus comes from Dennis Avery and Fred Singer who claim to have found 500 peer reviewed papers refuting that the last few decades of global warming are primarily anthropogenic. [Previous attempts to find peer reviewed skeptic studies](#) tend to miscategorise as skeptic despite the intent of the author or indeed the content of the paper. Avery and Singer appear to carry on this tradition.

While their [press release](#) peddles many skeptic myths, the major recurring theme is that over 300 studies have found [climate has changed in the past](#) and/or that [the sun is connected](#). Tamino at Open Mind does a good job [explaining the 1500 year natural cycles \(or Dansgaard-Oeschger events\)](#) along with some useful links to relevant peer reviewed studies. I've also touched on the notion that [climate has changed naturally in the past so it must be natural now](#).

Regarding the sun's connection to global warming (or lack thereof), there is much [empirical data and many studies on the topic](#) that have concluded the sun's contribution to global warming has been minimal. Nevertheless, blaming climate change on the sun is intuitive - to paraphrase the Great Global Warming Swindle: "human small... sun big". Hard to refute that kind of barnstorming logic. Nevertheless, I'll have another crack at breaking down the logical steps of why we know solar variations aren't causing global warming:

1. The sun has closely correlated with temperature in the past and been a major driver of climate
2. The correlation ended in the 70's when the modern global warming trend began
3. Therefore the sun cannot be the driving force of global warming over the past few decades

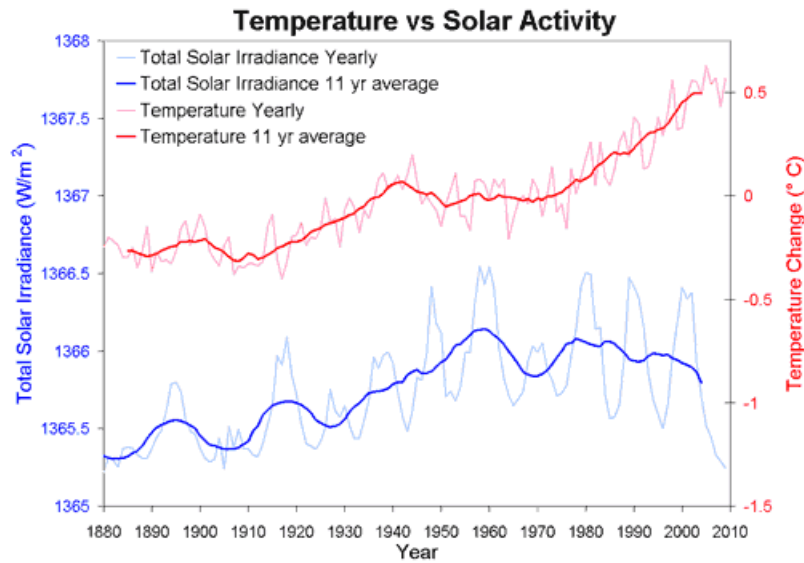


Figure 1: Annual global temperature change (thin light red) with 11 year moving average of temperature (thick dark red). Temperature from [NASA GISS](#). Annual Total Solar Irradiance (thin light blue) with 11 year moving average of TSI (thick dark blue). *TSI from 1880 to 1978* from [Solanki](#), originally hosted at [MPG](#). *TSI from 1979 to 2009* from [PMOD](#).

In other words, all the studies showing past correlation between solar activity and temperature only serve to emphasise the fact that the correlation no longer exists. Rather than refute the consensus, they reinforce it.

Intermediate rebuttal written by John Cook

Update July 2015:

Here is a related lecture-video from [Denial101x - Making Sense of Climate Science Denial](#)

[see video at [this link](#).]

This rebuttal was updated by Judith Matz on September 13, 2021 to replace broken links. The updates are a result of [our call for help](#) published in May 2021.



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Skeptical Science explains the science of global warming and examines climate misinformation through the lens of peer-reviewed research. The website won the Australian Museum 2011 Eureka Prize for the Advancement of Climate Change Knowledge. Members of the Skeptical Science team have authored peer-reviewed papers, a [college textbook on climate change](#) and the book [Climate Change Denial: Heads in the Sand](#). Skeptical Science content has been used in university courses, textbooks, government reports on climate change, television documentaries and numerous books.



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