

<https://web.archive.org/web/20170303230730/http://www.thebestschools.org/blog/2016/02/24/debate-climate-change-global-warming/>

The Most Rigorous Debate on Climate Change & Global Warming



[Ed. Note: This web page was corrupt when I downloaded it from the wayback machine. Minor typos are fixed, otherwise it is exactly as originally posted, other than being reformatted to a pdf. Andy May]

The original debate announcement

TheBestSchools.org is organizing an ongoing series of focused civil dialogues (FCDs) on controversial topics of significant public interest. Each FCD gives the participants the opportunity to formulate the best case possible for their position, focused on particular points of contention, in a civil and respectful manner.

TBS is proud to announce a new FCD, beginning February 15, 2016, on the topic of global warming (climate change) between Professor David Karoly of the University of Melbourne and Professor William Happer of Princeton University.

Professor Karoly is a Professor of Atmospheric Science in the School of Earth Sciences and the ARC Centre of Excellence for Climate System Science at the University of Melbourne. He is an internationally known expert on the climatology of the Southern Hemisphere, climate variability, and climate change. He was heavily involved in the preparation of the Fourth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC) released in 2007, as well as in other IPCC-sponsored reports.

Professor Happer is the Cyrus Fogg Brackett Professor of Physics at Princeton University. He is an expert on spin-polarized atoms and nuclei, and their applications, and helped to pioneer the development of sodium laser guide-star adaptive optics. Happer's research on the atmosphere for his work on adaptive optics led to his involvement in the global warming controversy. He has frequently served as an expert witness before U.S. congressional committees investigating that subject.

The FCD between Professor Karoly and Professor Happer will consist of four parts: in-depth interviews with each participant, a round of initial statements, a round of responses to the initial statements, and a round of replies to the responses.

The topic of global warming or climate change is highly complex, combining scientific issues from a variety of fields from physics to biology, with hotly disputed moral and political considerations.

The FCD on Global Warming between Karoly and Happer will cover such topics as the physics (both theoretical models and empirical evidence) underlying our understanding of the climate and its state changes, the role of biological feedbacks, the historical record, the existence and desirability of scientific "consensus" on this and other topics, the need for concerted international governmental action to combat global warming, burden sharing among nations, freedom of speech for scientists on this and other matters of grave public importance, and the general propriety of scientists acting as advocates in political controversies.

Part way through the debate came this announcement

Beginning February 15, 2016, TheBestSchools.org began hosting an in-depth dialogue on global warming (climate change) between eminent scientists [David Karoly](#) and [William Happer](#).

Dr. Karoly is a Professor of Atmospheric Science in the School of Earth Sciences and the ARC Centre of Excellence for Climate System Science at the University of Melbourne. An internationally recognized expert in climate change and climate variability, he was heavily involved in the preparation of the Fourth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC) released in 2007, as well as other reports. Karoly received his Ph.D. from the University of Reading in the UK. He is co-author with Dayton G. Vincent of [Meteorology of the Southern Hemisphere](#) (American Meteorological Society, 1999).

Dr. Happer is the Cyrus Fogg Brackett Professor of Physics at Princeton University. He is interested in the physics of spin-polarized atoms and nuclei, and in the application of these spin-polarized systems to other areas. A pioneer in the development of adaptive optics, as well as a long-term member of the JASON group, he has given frequent testimony before congressional committees on the topic of global warming. Happer received his Ph.D. from Princeton University. He is co-author with Yuan-Yu Jau and Thad G. Walker of [Optically Pumped Atoms](#) (Wiley-VCH, 2010).

Karoly and Happer find themselves at the center of an ongoing controversy over the nature and extent of the threat posed to humanity by global warming (or climate change).

TheBestSchools.org has therefore invited them to take part in what we call a Focused Civil Dialogue. The point of such a dialogue is for both parties to put their best foot forward in advancing their own case as well as in refuting the case of their interlocutors. We are grateful that both Dr. Karoly and Dr. Happer have accepted this invitation.

In such a dialogue, each party to a controversy develops what he or she regards as the strongest points in favor of one's own position and at the same time also defends against what the other party alleges as the weakest points in one's position. We like to suggest that each interlocutor articulate five strong points and five weak points.

Briefly, in such a dialogue both Dr. Karoly and Dr. Happer will each contribute (1) an interview, (2) a statement, (3) a response, and (4) a reply -- in that order.

The interview will typically take 6,000 words and give each the opportunity to favorably discuss one's own life and work. The statement will typically take 10,000 words and constitute the portion of the dialogue where each most forcefully advances one's own case. The response and reply together will typically take another 10,000 words, enabling each to refute the case of one's interlocutor.

Drs. Karoly and Happer will argue the following theses:

Dr. Karoly: *Science has established that it is virtually certain that increases of atmospheric CO₂ due to burning of fossil fuels will cause climate change that will have substantial adverse impacts on humanity and on natural systems. Therefore, immediate, stringent measures to suppress the burning of fossil fuels are both justified and necessary.*

Dr. Happer: *There is no scientific basis for the claim that increases of atmospheric CO₂ due to burning of fossil fuels will cause climate change that will have substantial adverse impacts on humanity and on natural systems. If fossil fuels are burnt responsibly to limit real pollutants like fly ash, oxides of nitrogen or sulfur, heavy metals, etc., the CO₂ released will be a benefit to the world. Any resulting climate change will be moderate, and there will be very major benefits to agriculture and other plant life.*

Drs. Karoly and Happer will thus each provide four written contributions. All this work will be posted online at TheBestSchools.org. Our main task in overseeing this dialogue will be to ensure that it does indeed retain its focus—that the points of strength and weakness raised by both parties do indeed get squarely addressed in their statements, responses, and replies.

UPDATE

At the midpoint of the Karoly-Happer dialogue, Dr. Karoly was unable to continue. Rather than abandon the conversation, The Best Schools elected—with Dr. Happer's gracious consent—to sponsor a contest open to the scientific community: \$5,000 for the best rebuttal to Dr. Happer's Major Statement.

On May 17, 2017, we presented the winner:

Announcing our Global Warming FCD \$5,000 contest winner!

Glenn Tamblyn is a degree-qualified mechanical engineer with a 30-year career in engineering, IT, and solar energy research. Having studied climate science for eight years, he is pursuing action to reduce the impact of anthropogenic global warming. Tamblyn received his degree from Melbourne University, Professor Karoly's university. He is co-author, with John Mason and Rob Painting, of *Introducing Climate Science* (Dunedin Academic Press, in press), a contributor to online courses about climate change, a team member in the climate science literature review *Cook et al., 2013*, and a contributing author at the website [Skeptical Science](#).

Mr. Tamblyn will provide the Detailed Response rebuttal to Dr. Happer in this FCD and also a Final Reply. We are grateful for his participation and cogent disputation.