

## **APPENDIX I: LIVING WITH CLIMATE ORTHODOXY ON CAMPUS: ONE PROFESSOR'S TAKE**

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What's it like being just about the only skeptic on a university campus? At first glance that seems like an absurd question. Academics are skeptics by inclination and by profession. That is what we do, and what we have done since the first of Plato's students strolled with him in the grove in Athens named after the hero Academus. The grove of Academus was a fine choice for Plato's inquiries into what is good, what is just, and what is true, since it had long been a site for the veneration of Athena, the goddess of wisdom.

Plato was a skeptic. He demanded that his students prove any of their assertions through logical argument and evidence. Indeed, he had inscribed over the gate of the grove, "All are welcome who love geometry." He didn't mean by this that you had to know how to circumscribe a triangle. He meant that you had to accept the rules of geometry's logical proofs: if you can't prove it, you don't believe it, but if somebody proves it to you, you must accept it.

Thanks to the intellectual sanctuary that universities have given to the concept of the academy for a thousand years, skepticism has given us all modern science and medicine, as well as practical politics and economics. Without the demand for proof and the refusal to genuflect to authority and conventional wisdom that skepticism breeds, we would still be living under slavery, monarchy, feudalism, and colonialism. Galileo and Copernicus would never have convinced us that the earth is not at the center of universe, Einstein that time slows down on a moving object (giving us  $E=mc^2$  and nuclear power), and Bohr that under quantum mechanics we are all just waves of probability (giving us modern chemistry and nano-physics). Without those discoveries, all resisted by reigning paradigms when first claimed, we would lack nearly every industry and invention that has brightened and dramatically extended human life.

So how has "skeptic" come to be a dirty word on campuses? Because it has become short-hand for anyone who questions, let alone rejects, the orthodoxy of man-made climate catastrophe. Of all the beliefs that are brought to the academy, the belief that industrial energy emissions are a threat to human survival is the only one that escapes Plato's rules. A decade ago my graduate students in quantitative methods for international affairs wrote papers describing the peer-reviewed models and statistical analyses cited by the UN's Intergovernmental Panel on Climate Change in support of its claims of emission-driven climate catastrophe. As I delved into the models and the analyses so I could grade those papers I was surprised by how weak they were, and how misleading was the IPCC's portrayal of their certainty. Since then I have filled the unsought but inescapable role of climate skeptic at American University in Washington, DC.

### **Costa Rican Carbon Credits**

Driving to campus recently to meet with a professor who is hosting an upcoming campus forum on "climate change," I was stuck behind one of our university's shuttle buses. Covering the back of the bus was an advertisement with significant consequences for my students, my paycheck, and my role as an educator: *"American University protects Costa Rican forests to offset the carbon emissions it creates with travel."*

What this means is that the university is writing checks to somebody in Costa Rica who promises not to cut down trees in a specific area. The justification for this policy comes from the theory that the trees that would otherwise be logged will continue to absorb carbon dioxide so that it doesn't mount to the atmosphere and contribute to a warming that leads to planetary disaster.

I wanted to pound my head on the steering wheel when I saw that ad. Our money will be passed on to Costa Rican landowners or the Costa Rican government. Small farmers who want to clear and work that land are out of luck. Logging cooperatives that want to harvest and replant trees are out of luck. Students who hope for lower tuition and professors who hope for more pay are out of luck. And the policy will have minimal influence on the amount of warming gases emitted to the atmosphere (which probably don't cause much change, let alone catastrophe in any event), and absolutely no influence on the university's vaunted and silly goal of achieving "carbon neutrality by 2020."

Oy vey. There is no such thing as carbon-neutrality in a booming, carbon-based economy. The bus that had the advertisement on it is made of materials mined, processed, and transported with carbon-based power, as is the road it runs on and the traffic lights it stops at. Students, professors, and staff need to eat healthy food, drink clean water, get medical care, be housed, travel, read, and take part in cultural events. All of these things have been developed and continue to be produced with carbon-based power. Like the wind farms and solar panels the university also subsidizes so it can add up putative carbon savings that "offset" the coal, gas, and oil that are converted to the electricity that powers America and its universities, the forest credits will not reduce emissions of carbon dioxide and methane. Emissions will continue to rise, as they always do, with demand and hence with income. All the offsets in the world will only slightly slow the rate of growth.

Our university instituted the offset policy because our president is one of the 685 who have signed the "American College and University Presidents' Climate Commitment." Here it is in its entirety:

*We, the undersigned presidents and chancellors of colleges and universities, are deeply concerned about the unprecedented scale and speed of global warming and its potential for large-scale, adverse health, social, economic and ecological effects. We recognize the scientific consensus that*

*global warming is real and is largely being caused by humans. We further recognize the need to reduce the global emission of greenhouse gases by 80% by mid-century at the latest, in order to avert the worst impacts of global warming and to reestablish the more stable climatic conditions that have made human progress over the last 10,000 years possible.*

There is scarcely a phrase, scarcely a word, in that statement, starting with the hubris implied in its title, that we know enough about the workings of the climate system to contemplate controlling it, that can withstand the intellectual scrutiny that freshmen should be able to bring to the table after their first semester. I count at least ten different claims in the statement that are exceedingly difficult, if not impossible, to assess with meaningful certainty with the data that we have. And that doesn't count the claim, stentorian but essentially trivial, of a scientific consensus that human-driven global warming is "real." That it's real has never been in dispute. Industrial gases with odd numbers of molecules vibrate because of their lack of symmetry, and this creates warming when they happen to vibrate at the same frequencies as infra-red heat leaving the earth. The problem is that science has been unable to do more than guess at the "sensitivity" of temperature to those gases as the heat melds into the wild, complex maw of an actual, rather than theoretical, climate system.

For 685 academic leaders to sign on to a multiplicity of tenuous theories as proven fact sends a decidedly anti-academic message to their students. The authoritative tone of the statement intimidates less confident students from conducting the same sort of skeptical questioning we are teaching them to apply to all other claims. As Peter Wood of the National Association of Scholars wrote when properly correcting my notion that votes by boards of trustees to divest from energy companies at least force students to grapple with the issues, "Students shouldn't be pressured into endorsing (a board's beliefs). I favor 'grappling' with issues, but it is hard to grapple with anything when the institution dictates the answer."

### **Climate Shenanigans**

Consider these excerpts from the report of American University's Climate Action Project Team of professors, administrators and activists, which was formed to implement the presidents' climate commitment:

*AU faculty members strive to epitomize the scholar-teacher ideal by studying climate change side by side with students. In 2009, an envoy of six students accompanied a faculty member to Copenhagen to participate in the climate change treaty dialogue.<sup>575</sup>*

Funny, nobody invited me. I think we can conclude that our participants were promoting one view, and one view only. The university shows its hand about that view by sponsoring a "dark night" each year on

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<sup>575</sup> "American University: Carbon Neutral by 2020," American University, May 15, 2010. [http://www.american.edu/finance/sustainability/upload/American\\_University\\_Climate\\_Action\\_Plan\\_-5-14-10.pdf](http://www.american.edu/finance/sustainability/upload/American_University_Climate_Action_Plan_-5-14-10.pdf)



the campus, when all the campus lights are turned off as part of an international initiative to promote controls on industrial gases. The “dark night” organizers hope to get a satellite picture out of it that shows the developed world looking “like Africa” for a night. Sadly, they miss the irony that Africans want their continent to look like the developed world at night, because all the houses have electricity, rather than the one quarter that have it today.

*Sustainability curriculum and research are being catalogued in order to identify areas of strength and opportunities for enhancing sustainability course offerings and connecting faculty sustainability interests with student interests and campus sustainability projects.*

Sustainability is a claim, a perspective, but not an academic discipline. Evaluating claims of sustainability, and the very concept and evidence for and against its validity—now that would be an academic exercise. The office of sustainability sent a “Go green” memo to all professors that included the suggestion that we raise grades for students who take part in demonstrations for legislation limiting emissions of fossil fuels. The memo offered us financial rewards and public recognition in a list of “green” professors if we reported our adoption of various “sustainable” practices, including this one. The policy was only dropped after I protested it in an article in the student newspaper.

*The university is striving to demonstrate distinction in graduate and legal studies. The Washington College of Law offers one of the most robust programs of international and comparative environmental law in the country.*

I attended a conference at the law school, where a DC lawyer who was suing an energy company on behalf of an Alaskan Indian village described his tactics. I asked him about the role of the well-documented North Atlantic Oscillation in the recent rise in Alaskan temperatures, and whether he had to introduce any proof in court that the sea level around the village would have been different had nobody in the world ever driven an SUV. He laughed and said no, and that this was why the lawsuit was so promising: following the lead of the Supreme Court, all American courts now consider carbon dioxide a pollutant, although it has no negative effects on people, and simply stipulate the wildest claims of the United Nations’ Intergovernmental Panel on Climate Change.

*The university strives to engage the great ideas and issues of our time through research, centers, and institutes. The Center for Environmental Filmmaking hosts an on-campus Environmental Film Series and sponsors an Environmental Short contest.*

I attended two of the Center’s events. The first was a screening of Al Gore’s documentary about climate change, introduced by a single commentator who announced that all of Gore’s claims were backed by a

consensus of the world's finest scientists. As I have written at length,<sup>576</sup> *An Inconvenient Truth* was actually filled with the sort of illogic and misinformation usually reserved for the closing arguments of a histrionic lawyer desperate to sway a jury. At the second event, a professor in the environmental film department screened his documentary about misleading claims in nature movies, where supposedly wild behavior and remarkable treks by animals are actually staged shots with animals that were domesticated, trained, and dragged about in front of the camera. He ended, though, by saying that such deception is justified to influence public policy: "I don't mind pretending that our staged penguins are in the wild, if it helps us save the penguins from losing their icy habitats to global warming." Whoa! Every last one of the millions of penguins in the world live in the Antarctic or very near it. In this region there has been very little warming, and actually a growth in ice in the past 50 years. Rest easy, friends of penguins.

### **Skepticism Affirmed**

There has certainly been a positive side to being the one skeptical professor on campus, and becoming steeped in the physics, mathematics, and policies of the energy debate. My joint appointment in international studies and mathematics has afforded me wonderfully varied opportunities to engage students in thinking about how we come to believe things, and how we come to change our beliefs. In statistics courses, we use the IPCC's global temperature data to learn how changing the starting and ending periods of a time series changes our conclusions about trends. In math courses, we study the construction of climate models using differential equations, and observe how their projections for future years quickly "run away" exponentially to absurd conclusions, both boiling and freezing, unless they are "tuned" and arbitrarily curbed. In courses on African politics we study how developed countries' carbon-phobia blocks World Bank electricity projects, and promotes the seizure of farmland by European companies seeking biofuel credits.

Most important, the climate and energy debate provides real-world and real-time cases for students to use in pondering the questions of the skeptics in the original Academy. How do we come to believe something? How do we use logic to evaluate our beliefs? Do we have to defer to political and scientific authorities if we are not expert in their fields? What sort of evidence or proof does it take to change your mind, or someone else's?

I have seen environmental studies majors in shock, and at times in tears, in my class as they realize that there may be a fundamental flaw in their education. One told me, "I've been here three years and this is the first time I've even been exposed to the idea that there is uncertainty in the climate claims. I feel like I've been wasting my time. I have to rethink everything I've been believing." When I hear that, about any

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576 Caleb S. Rossiter, "Climate Catastrophe: Convenient Fibs and Dangerous Prescriptions," *CalebRossiter.com*, March 2010. <http://calebrossiter.com/Climate%202010.html>

topic, I feel like I'm earning my paycheck. Rethinking, bringing skepticism to bear not just on others' claims but our own, is what we academics preach. It's nice to see it when it actually happens.

So, getting back to the climate panel on which I'll be speaking soon, I'll be ever-optimistic. The faculty sponsor is a campus mentor to the students who have organized to demand divestment of the university's portfolio from energy stocks. We've been colleagues in social activism since 1984, when he was running a group that lobbied Congress to end U.S. support for dictators and civil wars in Latin America and I was a congressional staffer trying to do the same thing. This is the first issue on which we've fundamentally disagreed. When we met that day I saw the campus bus bragging about Costa Rican offsets he stared at me in horror and disbelief as I explained my conclusions from studying and teaching the statistics behind claims of climate catastrophe. But he's an educator, the real deal. He signed me up to broaden the discussion, saying that it would do the students, and him, good to think about the other side. As long as we have professors like him who are trying to educate rather than proselytize, we skeptics in the academy will do just fine.

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