

GEORGE B. HANDLEY

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## Letter to a Student

Dear Clara,

You asked me the other day after class, why I, as a Christian, was so concerned about climate change. You expressed reservations about the urgency of the issue, but you said that you respected my opinion and wanted more clarity on the issue. I appreciated that you were honest with me about your feelings and that they came from a sincere concern to do what is right. I thought I would write down some thoughts that I hope are helpful.

I know you have had good reason to be suspicious of rhetoric that seems demeaning to people of faith and that the environmental movement hasn't always seemed friendly to religious people. You also mentioned that you are from a politically conservative family where environmental issues are viewed to be overstated by the political left. I have encountered some antireligious sentiments among environmentalists. And although raised as a moderate Democrat, my grandparents were conservative and the vast majority of my church friends and their families where I grew up were as well. I almost never heard about environmental issues in church, and when I did, it was with a tone of dismissal. So I know where you are coming from. Perhaps your parents, church leaders, or other mentors whom you admire have either never mentioned climate change as a problem or have explicitly told you it isn't a problem at all. So it is perfectly understandable that you would find yourself in a state of confusion about this. What I like is that you are asking questions and that you are willing to work for your own answers.

I want to remind you that asking questions is not contrary to what it means to have faith in a Christian context. Faith is confidence and

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trust in a higher power, but it is also, for that same reason, an acknowledgment of the distance between our thoughts and God's thoughts. In other words, faith means we acknowledge the limits of our own understanding and we seek, whenever possible, to correct ourselves of our own errors. It is perfectly fine to remain open, in other words, to science, even if at times it remains unclear to us how science and religious belief fit together. As Galileo once famously said, the Bible teaches us how to get to heaven, not how heaven goes. That is where faith is useful. Faith doesn't demand that everything makes sense or that we assume positions of radical certainty; what it requires is patient forbearance, a continual desire to learn, and a willingness to grow morally in light of new revelations. In my mind, we are more faithful when we are skeptical and ask questions than when we assume a confident denial.

Some Christians, unfortunately, let denial override their own commitment to principles of modest living and of concern for God's creation and for the poor. They speak as if it is absurd to worry about our impact on the planet. This is a sad distortion of the meaning of faith and a betrayal of Christian stewardship. Of course, I think it helps to know empirical facts, and as a good Christian who believes in educating yourself (otherwise why would you be in college asking me these kinds of questions?), you seem to agree. I am certainly convinced of the reality of climate change, but rather than try to convince you of its reality, I would prefer to try to convince you of the relevance of your beliefs in addressing such a problem.

A little context might help. According to a recent study done at Yale University, only 8% of all Americans are adamantly dismissive of the theory of anthropogenic, or human-caused, global warming (AGW).<sup>1</sup> There is another 13% who are at least doubtful about it. On the other end of the spectrum, 16% of Americans are alarmed about it, while in the middle lie the majority of Americans who are either concerned (29%) or cautiously concerned (25%) about the theory. So you have lots of company in your cautious concern. However, in many parts of the country, the deniers have the loudest voices and the biggest stages in which to air their views, and this gives the impression of a wider controversy than really exists. The skepticism expressed by politicians, talk show hosts, and Op-Ed authors rarely represents the majority of Americans. Recent polls indicate that even the majority of Republicans are now concerned about climate change, even though Republicans who have been brave enough to take a stand on climate change, such as Representative Bob Inglis from South Carolina, have been booted from office.<sup>2</sup> My point is simply this: denial is intimidating and perhaps silencing the majority in the nation who like you

would otherwise choose to act to avert the worst consequences of climate change.

Now I must confess: I clearly belong in the most worried category. Some might call me an “alarmist” which, of course, is not a compliment. But I think the word “alarmist” is supposed to describe someone who overreacts to or distorts information for the sake of raising fears. You know the old story about Chicken Little and the sky falling, a favorite story invoked by climate deniers. The moral of the story is true: we should use careful judgment so that we aren't seduced by every claim of disaster and doom. Fear, in and of itself, is neither a noble reason for acting nor for motivating others to act. But you also know the humorous but profound bumper sticker that says, “Just because you are paranoid doesn't mean they aren't out to get you.” Real fear, in other words, is not an inappropriate response to a real threat. I believe, however, that the most powerful response to a threat is one of love, faith, and determination. Denying a real threat is not courage but despair. In other words, alarmism is only alarmism when it is based on false information or premises. Otherwise, it is what we would call moral urgency.

I fully recognize, of course, that deniers relish their minority position; it is, in their minds, a badge of honor. A stubborn minority position can be virtuous, of course, but this is only true if the mainstream is wrong. Otherwise, it is simply moral turpitude. And what a misuse of our own faith it would be to trust such pundits over our own powers of reason.

Years ago I got into a debate about climate change with a friend who is a medical doctor. Insisting that the planet had not been warming over the last few decades, he went to the computer and printed out a graph he had found somewhere on the internet and showed it to me. I was surprised that a medical doctor, of all people, had cherry picked data from the internet in precisely the manner that doctors caution against. If they diagnose you with a serious illness, they want you to be careful about believing everything you read on the internet. This is for a good reason. The internet has many excellent resources, but they are sometimes hard to distinguish from bogus or misleading information. As wrong as my friend was to believe he had all the answers, however, the truth is I had no alternative source of information. I realized my belief about the issue had relied almost entirely on what I had heard others say or what I had read in the newspapers.

So I made up my mind that night that I would study this out on my own. After years of reading and talking to scientists, I still don't know everything there is to know on the topic, of course, but I know

enough to understand where this denial is coming from and just how irrational it is. (I now understand, for example, that the graph he showed me only accounted for air temperatures and not ocean temperatures where most of the heat has been recorded in the last 15 years.)<sup>3</sup> At this point, after years of reading both sides of the climate change debate, I find so little evidence for deniers to stand on, I can't help feeling embarrassed for them. I like to hope that at some time in the distant future, they will finally admit their error and apologize to the future generations they have put at risk in their stubborn denial. But my hope is weak. I say this because the evidence by now is too overwhelming. If they can't see their error at this point, it should be clear that they never will.

This is why I write to you: you have reservations but you are committed to being better informed. Perhaps you are just not yet sure to which sources of information you should turn. You can tell how skewed much of our media is today by partisan politics. But you trust, I hope, that reason is a partner not an enemy to belief and that armed with a good and honest heart and an earnest desire to know the truth, you can't go wrong in the end. This is what it means to be a skeptic; it means that you understand that you must read widely rather than selectively and that you are never quite done with your education. Deniers, on the other hand, know fact from falsehood with absolute certainty even in the face of mounting evidence, and that is because their information is selectively chosen. They relish the chance to be overrun by a majority opinion and scoff at the silliness of beliefs based on a slow accumulation of consensus. You are a skeptic, by contrast, if you are thoughtful, inquisitive, and honest about what you know and what you don't know. And because you believe that asking questions isn't just a rhetorical device for obfuscation but a method for gaining clearer understanding, I want to remind you, however, that confidence should not be confused with arrogance or mere self-assertion. Access to reliable information is vital, but even more important is greater clarity about your most important principles and values. I would like to believe that all that people need is more information, more data, and more facts from the most reliable scientific sources. But what is even more important than information is for us to stop giving so much attention to the spectacle created by deniers, and this will happen when we refocus our attention on our most cherished beliefs and moral principles.

It is unfortunately easy to confuse our most fundamental beliefs and moral principles with political ideology, however. For many political conservatives, climate change is a tough pill to swallow because Al Gore was the chief spokesman for some time and because it seems to

suit a liberal view of a bigger role for government more easily than a conservative view of limited government. Like everything else these days, most studies show a divide about climate change along partisan lines.<sup>4</sup> Moreover, there is some reason to believe that religious faith is correlated to less concern about climate change.<sup>5</sup> And why this latter trend? Because political ideology is getting in the way of sound stewardship principles that we find in most religious traditions and certainly in ours. These trends notwithstanding, an increasing number of religious leaders are decrying the degradation we are causing the earth. Concern for caring for creation is one of the most sweeping and impressive developments in religion in the last 50 years. Pope Francis, the Dalai Lama, Patriarch Bartholomew, and the Evangelical Environmental Network are just a few examples of people of faith speaking out against the damage we are doing to the climate and to God's creations. Jews, Muslims, and Hindus have also all been engaged.

There are deniers too among religious leaders and in religious communities and among outspoken religious politicians. I have heard some believers suggest that climate change can't be happening because God wouldn't let it happen, that it is hubris to believe we have that kind of power. I am not sure which Bible they are reading, however, because my experience in the Old Testament tells me that wickedness is most often rewarded with an uncooperative climate. Some of the denial seems based on the opposite idea that maybe climate change is a sign of the end times, so there is no point in resisting or trying to stop what has been prophesied. If the earth is going to die anyway, the logic goes, why bother recycling or worrying about carbon emissions? But if you really think about it, this is morally perverse logic. Christ said, "it must needs be that offences come, but woe to that man by whom the offence cometh!" (Matthew 18:7). We might not be able to stop the rest of the world from making bad choices, but why would we want to welcome and even encourage the world's destruction? This is like believing that we should engage in more wickedness so as to bring Christ back sooner, or that we should commit suicide, so that we can resurrect. Maybe it is simply hard to know that making the right choices will make any difference in the long run. But if you were raised like I was, you were taught that Christians should do the right thing no matter the outcome. Besides, imagine what a difference we would see if conservative Christians united to fight climate change!

The important thing to remember is that *the climate has nothing to do with political party, religion, cultural identity, or any other belief system. The climate is either changing dangerously or it isn't and this change is either*

*caused by our carbon emissions or it isn't.* So it would seem that any reasonable person would not glibly offer an opinion on the matter without making an honest effort to understand these issues empirically. And an honest effort does not consist of merely following your general suspicions and surfing superficially on the internet to find websites, think tanks, and other sources of skepticism regarding climate change that will provide you anecdotes merely intended to sow doubt. Or listening to only one source of news. Or listening to talk radio. This is because there is steady drumbeat of doubt peddled by a host of organizations who make a living on misinformation about climate change.<sup>6</sup>

You will need to read some science directly, instead of reading reports and spins about it. Try *Scientific American* or *National Geographic*. And try accessing the many accessible websites produced by credible scientific organizations.<sup>7</sup> It isn't that hard to read and understand the reports of the International Panel on Climate Change. Indeed, you can consult any major scientific society in the world, and guess how many purport evidence of any kind on behalf of denialism? None. Zip. Let's be clear about this: doubts, spin jobs, and anecdotes about unreliability *are not scientific evidence*. And honest questions that still need to be answered about the science do not constitute evidence that climate change is not real. So it is not, in other words, just the International Panel on Climate Change, which consists of hundreds of the world's leading experts, but the American Medical Association, the National Academies of Science, the Botanical Society of America, American Geophysical Union, the Pentagon (yes, the Pentagon!), etc., etc. All of them state unambiguously that the evidence is clear that we are warming the planet and endangering future generations. And a whopping 97% of all climatologists accept this theory.<sup>8</sup> 97%. Don't be fooled by the old argument that "hundreds" of scientists disbelieve AGW. There are thousands upon thousands of people with PhDs in the sciences across the world and yes there are skeptics, but they are not, on the whole, climate scientists with the proper credentials and they are nowhere near a significant percentage.

And why such an overwhelming consensus? Well, for one, the evidence is coming in from all over the world and from all over the sciences. We have extraordinary corroboration across a plethora of scientific disciplines including Oceanography, Biology, Climatology, Geology, Chemistry, Botany, Zoology, Archaeology, Entomology, etc., etc. We can't explain flora and fauna migrations, rapid declines in biodiversity, acidification of the ocean, warming surface temperatures in the ocean, declining ice mass, changes in the atmosphere, all with just a few teams of scientists scheming to corroborate their stories. Besides,

scientists make a living and science advances precisely on the basis of *disproving alternative theories*. Scientists have examined each and every alternative theory to try to explain the climatic changes we are seeing, including sun spots, water vapor, and natural cycles, and they have come up with precisely no evidence to suggest a better explanation than AGW. The sheer amount of conspiratorial collaboration across disciplines and across the world that would be necessary to achieve the kind of consensus we have now, all of it supposedly bypassing the need for any real, hard evidence, simply stretches credulity. Theories about conspiring governments and scientists generating the theory of AGW are not based on faith but on science fiction.

I am not naïve. I don't believe in the moral purity of all scientists. Scientists don't help their cause when they make claims about reality that go beyond what science can demonstrate. I don't believe government can do no wrong. I don't believe all think tanks are full of liars paid directly by the Koch brothers. But surely claims that government can do no right, that scientists are corrupt to the bone, and that think tanks are categorically more reliable than the rest of scientific research across the globe combined are just as silly. Do scientists sometimes go along with a narrative because they are too afraid to break ranks? Of course. But does consensus—just in and of itself—suggest evidence that fear is overriding logic, data, or sound scientific experimentation? If it did, why are we not challenging other theories such as the idea of continental drift, the age or shape of the earth, or the idea that smoking leads to cancer?

Well, we do in fact continue to see doubters on these questions.<sup>9</sup> They just don't go away, even long after they have lost credibility. The real problem is that deniers don't employ doubt with consistency. When they want to cast doubts on, say, computer models used to project warming trends into the future or about measures used to gather data regarding warming, they will never doubt, let alone even describe, their own models that they are using to make their own predictions about what won't happen in the future. Denialism foments doubt about conspiring scientists but none about conspiring corporations. Denialism wants us to see the corrupting influence of money in science but not in government, in business, or in international relations. It wants us to distrust climate change because it is government-funded research, but it doesn't question successful government research done in the name of fighting cancer, AIDS, and a whole host of other medical fields or the government-sponsored research that has gone into our technological advances, that put a man on the moon, or that enabled us to develop a fossil-fueled society in the first place. Nor, for that matter, will deniers explain why government is so motivated

to promote a theory that undermines the very structure of our energy economy. They deny AGW but then, when in the face of mountains of evidence, they will claim that mitigating against climate change is too expensive. And then, almost in the same contradictory breath, they will complain that Al Gore and Thomas Friedman are multimillionaires making hand over fist in clean energy. Deniers want to “let the market decide” to reward renewable and clean energy, but they won't acknowledge the ways in which the energy market is already heavily subsidized in favor of fossil fuels and that it is certainly not free. They refuse to moralize about our consumption but then moralize about all other bodily appetites.

Is this use of doubt evidence of clear and consistent moral values? I think not. Remember OJ Simpson? You don't have to prove anything. You only have to make people afraid that they might be wrong. Besides, where in all this outrage about a conspiracy can you hear outrage about excessive greed, about indifference toward the suffering of the most poor and most vulnerable? Since all religions believe in caring for this earth, why aren't they talking about a religious or conservative environmental ethic? The fact that these folks do not spend equal time articulating such an ethic let alone striving to live up to it should give us pause in granting them so much moral authority.

So here are some thoughts for you if you remain on the fence. If you prefer small government, fine. There are small government and free market solutions out there and many thinkers believe that the fear that redressing climate change is too expensive is simply wrong-headed.<sup>10</sup> The fact that Al Gore is making hand over fist investing in clean energy isn't evidence that AGW is false; it is evidence that clean energy is the future for the global market. Just ask the Chinese. Or the Danish. Or the Germans. If you are waiting for religion to speak up, again be aware that it has.<sup>11</sup> There are some church leaders who have yet to speak out, but consider that we can hardly be considered to be morally principled if we are just waiting around for someone else to tell us what to care about.

Some have wondered, I see that the climate is changing but isn't the world in God's hands? Well, yes, but didn't he place it in our charge? If you are a believer in the Bible, weren't we asked to “take good care of it,” to be stewards answerable to our Creator for how we treated the elements? Some have wondered, why should I care about plants and animals, when God made us lords over the whole earth, to subdue it? We are supposed to multiply and replenish the earth, after all. Well, yes, but consider that God commanded the fishes in the waters and the fowls in the air to likewise multiply and replenish, to “fill” the seas and air (see Genesis 1:22). God seems to be pleased with an earth that

is flourishing, that nurtures all life, not just our own human lives. That was his central message to Job. And he seemed pretty intent on pronouncing all life “good.” And whose responsibility is it to ensure that this goodness continues? Biblical teachings tell us that we are called to serve God's creation for the sake of future generations and not to lay waste to what is our own exceptional opportunity to live on this beautiful planet.

Ask yourself: How can we be moral if we refuse to learn about the earth's remarkable and miraculous capacity to regulate the climate and to provide the conditions of life for all living things—the very conditions that have enabled God's plan for all of us on this planet—and then watch with impunity as we bring this capacity to ruin?

If the theory of AGW just doesn't sit well with you, then try this: what is primarily causing global warming is overconsumption. Material greed is the single greatest threat to the earth since it leads people to use up land and water disproportionately, to create more pollution, and to emit more carbon than others. Surely, we can agree that advocating consumption at will is immoral and that working for cleaner air is an unambiguous good. Moreover, getting us off of fossil fuels is good patriotism; it gets us off of our addiction to petrodictators—the Sadam Husseins of the world—whom we have created across the globe from our outside demand for fossil fuels.

Moreover, what is good for the climate is good for the poor. Listen to the stories of the millions in the developing world whose lives and livelihoods weigh in the balance with a warming climate. The poor have the fewest resources to be able to respond effectively to a warming climate. They are more directly dependent on the ecosystems where they live, they live disproportionately closer to sea level, and they do not have the technological recourse we do to adapt quickly. Their families and communities are eroded because of increased difficulty in gaining access to the resources they need or increased difficulty in resisting the impact of a changing climate. If you have family values, you should care about climate refugees. You and I, we can adjust our AC, we can change our clothes, but plants and animals and ecosystems around us cannot adjust in time to survive the rapid rate of change we are seeing and neither can the world's poor who are already poorer for our inaction.

What I am suggesting is really quite simple: what will help the climate is already clearly outlined in religious teachings. If we live modestly and consume only what is necessary and we share generously with the poor; if we cease from our labors and excessive recreation on Sundays; if we are concerned about human flourishing across the world and we understand that such flourishing depends on the

well-being of all flesh, then we are doing right by the climate. If we raise voices of concern for policies, practices, and political leaders that will move us toward solar, geothermal, wind, and other alternative energies, we are in a position to use resources God gave us in abundance. If we use our remarkable gifts of innovation, scientific understanding, and moral drive to make a cleaner and more sustainable world for our grandchildren, if our hearts are truly turned to them, then we are living right. If we do all we can just to improve air quality, especially on behalf of children and the elderly, by using public transportation, walking, and advocating for policies and supporting institutions and politicians that get us away from fossil fuels, then we are also fighting climate change. If we are good stewards of our time and resources and read widely, carefully, and thoughtfully about the earth and its workings, we are in a position to make good moral judgments. If we live with compassion on the earth and for all living things, especially the most vulnerable, if we shun those who would pervert our relationship to the Creation in the interest of self-aggrandizement and material power, are we not living a religious and a Christian life? You don't have to be a Democrat and you don't have to like Al Gore. You just need to live your religion with more intensity and broader purpose. Besides, political engagement that stems from religious conviction needn't be defensive or reactive; your highest moral principle is not fear but love, proactive love for the poor and for the earth that is our gift.

Sincerely,  
Professor Handley

#### NOTES

1. See <http://environment.yale.edu/climate-communication/files/Six-Americas-September-2012.pdf>.
2. See <http://energyandenterprise.com/our-leaders/>.
3. See the website Skeptical Science at <http://www.skepticalscience.com/>.
4. See <http://www.people-press.org/2008/05/08/a-deeper-partisan-divide-over-global-warming/>. See also Mike Hume's *Why We Disagree about Climate Change*.
5. See <http://www.pewforum.org/2009/04/16/religious-groups-views-on-global-warming/>.
6. See Naomi Oreskes and Erik Conway's *Merchants of Doubt: How a Handful of Scientists Obscured the Truth on Issues from Tobacco Smoke to Global Warming*.

7. See the short documentary produced by the National Academy of Sciences at <http://nas-sites.org/americasclimatechoices/videos-multimedia/climate-change-lines-of-evidence-videos/>.

8. See [http://tigger.uic.edu/~pdoran/012009\\_Doran\\_final.pdf](http://tigger.uic.edu/~pdoran/012009_Doran_final.pdf).

9. For a full narrative of the denialism that questioned links between tobacco and cancer, see Oreskes and Conway's *Merchants of Doubt*.

10. See <http://environment.umn.edu/gli/> for example. Or read Thomas Friedman's *Hot, Flat, and Crowded*.

11. For more on this, consult <http://fore.research.yale.edu/>.