Lifting Up – Dr. Katharine Hayhoe

Dr. Katharine Hayhoe is an Associate Professor in the Public Administration Program, and Director of the Climate Science Center, at Texas Tech University. Her research focuses on developing and applying high-resolution climate projections to evaluate the future impacts of climate change on human society and the natural environment. She is a widely known speaker on climate change, and through her consulting company works with cities and states to help them adapt to climate change. Katharine joined the American Scientific Affiliation (ASA) a few years ago; see more about her at her profile in the ASA membership directory.

Why are you a Christian? Growing up in a Christian home, I learned about God and Jesus from an early age. When I began to examine what I truly believed as an adult, I asked myself if these Christian teachings made sense, if they fit with what I was learning about the world and about science. I concluded that, yes, they did, and I’ve never turned away since.

Why are you a scientist? My dad was a science educator, so I grew up with the idea that science was the most fun and interesting thing in the world. By the time I figured out that some parts of science were frustrating and boring, I was already halfway through my undergraduate degree and it was too late—I was hooked! I was originally studying astronomy and physics, but I decided to focus on atmospheric science after taking a class on climate change. I learned that this was a lot bigger problem than I thought, and that in studying physics, I had much of the experience and knowledge needed to study what the climate system was doing and how humans were affecting it. Climate change is a huge issue—not just about animals, plants, and ecosystems, but about human beings and their lives—so I tackled it with the optimism of youth!

How do your faith and your science enhance each other? Science can only take us so far. In my area of atmospheric science, science can tell us that the climate is changing, that human activity is causing this change, and how the potential impacts depend on the decisions we make today and in the future. But science can’t tell us the best decision to make. That is where our values come in. While the Bible doesn’t mention climate change, it does have lots of information about the attitudes we are to have. One of the fundamental attitudes of a Christian is love—love for God, love for others. When we look at climate change, it is disproportionally affecting poor people and our neighbours here at home and abroad. In the developed world, we are either denying the problem exists or acknowledging it but doing little to solve it—while our less fortunate brothers and sisters are bearing the brunt of its impacts.

Our faith provides the motivation, the desire from the heart to do something about climate change. When I think of farmers in Africa, I think of how they have planted for generations according to the seasons of rain. But now, because of climate change, the rains aren’t coming at the expected time, and when they do come there is either not enough rain or too much. When a family lives on $2/day, this disruption can mean life or death. Large concentrations of people live within a few feet of sea level, including in nations such as Bangladesh, India, and many island states; rising seas could leave millions homeless who have nowhere else to go. Closer to home along the Gulf Coast, sea level is rising and hurricanes are becoming stronger. When these come, it’s primarily those who are well-off
who have the ability to evacuate and move away or rebuild. The poor are stuck with the devastation but few resources to cope.

**What, or who, have been the three greatest encouragements for you personally in your career?**

**My parents.** My dad taught me that science was not only fun, but an amazing way to understand what God was thinking about when He designed creation. My mom was also a teacher and loved studying. Even with three kids, for as long as I can remember she would spend her one free day a week furthering her education at the local university, while we went to Grandma’s house. My parents were great role models for science and lifelong learning.

**Fellow Christians.** Since I began to speak publicly about my Christian faith and the urgency of climate change, I’ve been attacked quite viciously by some in the Christian community and beyond. At the same time, though, I’ve had many people send me a supportive email or tell me in person that they are praying for me. This has been an incredible encouragement! I can see the difference prayer makes in terms of the level of opposition I’m experiencing, as well as how I’m able to cope with it.

**My colleagues.** Many in the science community have the perception that Christians check their brains at the door when it comes to science. Because of that perception, I was worried about what my colleagues and other scientists might think about how I was connecting my science to my faith. For the most part, though, my worries were groundless. Even non-Christian colleagues have been supportive and helpful, telling me things like, “I don’t share your faith, but I really support you in what you are doing and who you are trying to reach.”

**What advice do you wish you had received as a student or earlier in your career, or would you like to offer others?** I’m often approached by young people who tell me about an issue that they care about, asking what to study in school so they can make the biggest difference. My answer is: study what you love. Don’t pick your course of study based on what you think will make the biggest impact. As it says in Ezekiel, God has given us a new heart; that means that we can trust the desires of our heart. If you study what you love, God can use that study to achieve the goals He has in mind for you. Often as Christians we are told to put aside our own desires, but in my own experience, following my heart has led me to where I believe God wants me to be.

As Christians, and as academics or other professionals, we are often exhorted to have very concrete goals (e.g., the five-year plan). It is always a good idea to have goals and structure and some idea of where we are going, but in my experience we need to avoid being fixated on our plans and instead be willing to be flexible and listen when it seems God is telling us to go in a different direction – even if that direction seems counter-intuitive or even scary. God’s approach can be radically different than what we have in mind, and radically better.

**What is your vision for Christian Women in Science and/or the American Scientific Affiliation?** To be honest, I didn’t even know about ASA until I was asked to speak at the 2011 conference, and I came in not knowing what to expect. ASA has exceeded my expectations in so many ways. Through ASA, I am able to listen to many people at the top of their field, in diverse scientific areas, speak confidently yet humbly about their faith, sharing their reflections about their work. That thoughtfulness is a great encouragement to me. Many of these reflections, even the verses they quote that shape their perspectives, are ones that I share or that I learn from. Having Christian Women in Science as part of ASA will add an additional level of shared values and interests from which we will be able to draw encouragement and support.