

World view



By Maggie
Ryan Sandford

You can't fight feelings with facts: start with a chat

I donned a sandwich board inviting questions on evolution and learnt three crucial lessons about public engagement on divisive issues, writes Maggie Ryan Sandford.

I went to the Minnesota State Fair last year wearing a sandwich board. It said, “Ask me anything about evolution.” Proponents of evolution assumed I was a religious zealot. Creationists assumed I was there to mock their beliefs. The biggest challenge in fighting misinformation? Just getting a conversation started.

This public-engagement stunt taught me a crucial lesson: the key to effective science communication isn't the science. It's communication.

Attendees had come to show off prize livestock, eat corn dogs and ride the Ferris wheel, not get angry about someone who disagrees with them about the origin of life on Earth. Most folks wouldn't stop to talk unless I passed what I came to recognize as ‘the first test’. Some would call out, without slowing: “Do you believe in evolution?” Others, “Do you believe in God?”

Part of me died each time I answered with a profoundly un-nuanced “Yes!” But, as a science communicator and former education researcher, I knew that, in matters of deep personal belief, facts matter less than feelings. The need to identify whom you're dealing with is a natural human instinct. Answering was the only way to unlock the rest of the conversation. So I simply let people know I was a big fan of the globe and everything on it, and that I'd written a book about animals that I hoped people would find inviting.

In the cow barn, a man with his pre-teen daughter smiled at me, then avoided my gaze. “We don't believe in evolution, so ...” “Okay!” I called back. “Did you want to talk about cows?” I pointed out how humans can build muscle by eating cow protein, because of our shared ancestry. We know that ‘relevancy’ is crucial to public understanding – people need takeaways that relate to their everyday lives. “Well, that's awesome,” he said, “because I do love a good steak!” Before he and his daughter walked away, we exchanged thumbs ups.

Lesson 1: Don't argue with beliefs. People tend to incorporate facts that align with their belief systems.

No problem. I just had to find topics that made sense to all of us – pro-and anti-evolution alike. Dogs or livestock breeding, for example. Half the folks within a 30-metre radius were there to showcase their carefully bred cows, horses and chickens. Open-faced and genuine, I invited them to school me on the areas of their expertise. Which, it turns out, is evolution.



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Lesson 2: Listen. The most challenging group of the day consisted of two men and a woman in their late twenties. The men were just looking for a fight. Telling me why I was wrong was, I supposed, a way of asking me about evolution. I asked them to elaborate, to tell me why it was that they found evolution hard to swallow. This led to their female companion insisting: “She listened to you. Now you listen to her.” In the end, one man explained my points to the other. “She's saying evolution is mutations in our DNA,” he said, forcing his companion to let him finish. “I'm just saying, I get her side.”

Lesson 3: Learn what people really think. Almost everyone – secular and religious – had misconceptions about evolution. Advocates of evolution often hadn't learnt that evolution can now be tracked in genomes, not just fossils, and that humans are related to all living things, and that we didn't come from apes because we are apes (keep in mind, ‘ape’ is a word that humans made up).

But the misconceptions of religiously inclined folks often had greater personal significance. Listening to them, it became clear that they considered evolution an attack on all they held dear. Several asked me about a narrative they'd heard somewhere about how “life began when water was dripping on a rock”. Clearly, they were worried that such a narrative undercut the idea that humans were created in the image of God.

People from both groups often misinterpreted the term ‘survival of the fittest’, and were surprised to hear that evolution isn't a system of improvement, just a system of change. And that *On the Origin of Species* was not intended as an attack on faith. Even in old age, Darwin declared: “I have never been an atheist.”

Lay people are more likely to trust and engage with science when they learn that researchers are human beings, fallible and conflicted. Yet somehow it seems hard for many in the scientific community to show those qualities to others. A common concern is that, in the anti-evolution, anti-science debate, any whiff of disagreement or uncertainty spells doom for scientific arguments.

When I began this ‘experiment’, my hypothesis was that a willingness to show vulnerability – to show that we science folks are willing to listen and receive criticism – boosts credibility, not the opposite. I think my experience supports that. When feelings speak louder than facts, appealing to feelings can actually work in favour of science.

No matter where we think we fall in the evolution debate, all of us are human, and we evolved to read each other's facial expressions and tones of voice, to be together. Returning to our humble, apish roots is the only way to see anti-science sentiment go the way of the dodo.

Maggie Ryan Sandford is a science communicator and author of the 2019 book *Consider the Platypus: Evolution through Biology's Most Baffling Beasts*. e-mail: m.r.sandford@gmail.com