

How long is a century?

A science blog by Beatrix Siemering

We do our weekly shopping at the weekend.

“What do you want to eat next Friday?” I ask my husband.

“I don’t know. What do you want?”

“I don’t know, let’s see what’s leftover at the end of the week?”

“Sure, or we could go to the pub?”

“Maybe? I don’t know yet...”

How is it that we, humans, are capable of the most complex thought processes, yet planning dinner five days ahead can be an impossible task? Some of you might say, “A weekly meal plan is no problem”. But, what about two weeks? A month? A year? Surely, that’s ridiculous? What about in 100 years? Most certainly not.

But why not? I never asked myself that question until I started working as a climate scientist. Why is it so hard to get people to care about our world in 100 years’ time? We know and we *understand*, that it is important.

Climate models create future scenarios, based on expected carbon emissions, telling us about the state of our earth in 35, 50 or 100 years. Projected trends of higher temperatures, increased risk of wildfire, melting ice caps. It is dramatic. It is bad. Really bad. We need to act! Now! But, no one cares what it will be like in 100 years’ time. People want to know what is happening now. What will this season be like? Will we see any extreme events next year? The year after, maybe. So I have to ask again: why not in 100 years?

Sarah Pahl and colleagues offer an answer in their publication ‘*Perception of time in relation to climate change*’¹. In their work, they explore why so few people want to engage with the long term issues of climate change. If you too struggle to care about climate effects in 100 years, do not worry. It is not your fault; it is the way our brain evolved during the early years of humanity. The challenges early humans had to face were instantaneous cause-effect situations. You see a lion, you run. This was essential to our survival. But, how many lions will exist in 100 years? The early hunter-gatherers did not care. And most modern day humans do not, either.

As climate scientists, we are now faced with this dilemma. Most people want instant cause-effect situations. Instant impact and instant fixes. It is not surprisingly, really. Science projects usually receive short-term funding, over a couple to several years, in which we must provide meaningful results. Politicians are usually only interested in a time span that coincides with a political term in office; the electoral voting cycle for most countries is about four to five years long. A century is simply not a time frame we are used to dealing with. We need to change our thought process, or risk irreversibly damaging our planet. While model scenarios run far into the future, the effects of climate change are visible today, now stronger than ever. Remember this summer? When the news was full of reports of [droughts](#), [fires](#) and [debates if 2018 was indeed the hottest summer on record](#)? When the soil was so dry that [completely unknown historical sites](#), some hidden for thousands of years, were discovered?

Lucky for us, there is hope! The key to effective communication on climate change and provision of usable climate services is in interdisciplinary research and in co-development and co-production approaches to create climate services needed to navigate future changes. It is not enough for scientists from different fields to work together. We need to engage with the general public, the

users of climate services, and the people whose lives we want to improve. Sarah Pahl and her team¹ suggest an approach that relates expected changes to people's personal experiences, lives and culture. And very often small changes in your day to day behaviour can go a long way with changing the future. Think about the political candidates you vote for and their agenda on environmental issues. Consider cycling or taking the train to work instead of driving. Save energy at home. Eat vegan on a Wednesday. Support businesses who value the environment. Listen to and engage with climate scientists. Care more.

I know what you are going to say, "I am only one person, how will any of this make a difference?" I have to be honest with you, you're right, you probably won't. But you are not alone. You are part of what is now an over 7 billion-strong "us". Can you imagine what difference we can make, if we all adapt and make small changes? No, neither can I. That would never work. But, can you imagine the difference we could make even if only one percent of the global human population makes small changes? That is 70 million people or 14 times the population of Ireland! Only one person in 100 and that could be you... Think about it.

¹ Pahl, S., Sheppard, S., Boomsma, C. and Groves, C., 2014. Perceptions of time in relation to climate change. *Wiley Interdisciplinary Reviews: Climate Change*, 5(3), pp.375-388.