Personal action, climate activism, or becoming politically active. Which matters more?

As you have no doubt gathered by now, this course focuses on cultural changes as a way of mitigating the climate crisis, rather than just technological solutions.

Up to this point, we have mostly held our focus on personal actions as a way of bringing about cultural change, such as largely forgoing cars, planes, and animal products.

During all this, you may have wondered if personal actions, such as switching to a large plant-based diet, are enough. If so, you are not alone, as a number of people have argued that such actions will prove inadequate to mitigating the climate crisis.

For example, climate activist Naomi Klein has suggested that "focusing on individual consumer behaviour, whether it's changing lightbulbs or going vegan, is just not going to get us there." Similarly, climate scientist Michael Mann has argued that focusing on "beef consumption heightens the risk of losing sight of the gorilla in the room: civilization's reliance on fossil fuels for energy and transport overall, which accounts for roughly two-thirds of global carbon emissions."

In fact, both Klein and Mann are right.

Even if everyone on the planet went vegan, it would not, as Klein notes, be enough – and, I would add, not by a long shot. Moreover, the reason that I started this particular lecture series with the personal actions of automobile and air travel was to underscore that for most Americans transportation is, as Mann notes, the 800-pound gorilla in the room.

Energy and transport, which Mann rightly focuses on, does not only cause CO2 emissions, but methane as well. Around 28% of methane emissions comes from meat (generally beef) production. However, an even greater amount comes from fossil fuel extraction, principally from hydraulic fracturing (aka fracking). Consequently, just switching to largely plant-based diets does not address the largest methane problem that we are facing.

It is worth pausing to consider just how much can be done thorough personal action.

Yes, if everyone on the planet gave up eating animal products, it would significantly reduce global methane emissions. However, we need to accept the sobering fact that a broad swath of human beings are not going to do this. As I made clear with my lecture series on "Climate and Generation," many in the older generations (like mine) will not likely do this voluntarily. And they're just the tip of the iceberg, as many people across the planet will not likely voluntarily do so for a host of reasons.

Moreover, even though we can indeed reduce global methane emissions at the breakfast table, fracking is the bigger methane problem. We cannot, practically speaking, end fracking through personal action. True, we could all could forego the products of fracking, gas and oil, but without

practical and affordable alternatives (i.e. alternative, renewable energy), how exactly would we live, as quite a bit of our modern lives are fueled by gas and oil?

Hence, unlike the situation with food, we cannot easily make a personal switch here. While we could all install solar panels on our roofs with storage batteries inner closets, this would not address the fact that fracked gas and oil would still be used to make a good deal of the rest of our lives possible, such as the energy used to make our clothes and other stuff. Moreover, just as with the switch to largely plant-based diets, many (probably most) people will not likely voluntarily become their own electricity providers.

So, with respect to methane, this is the sobering situation: Right now, only a small percentage of Americans eat with the climate in mind. And fracking, the bigger methane problem, is definitely on the rise, as half of the oil and two thirds of the gas produced by the US. is now fracked.

You can see why Klein and Mann want to shift focus away from personal actions like eating a largely plant-based diet.

But, staying with this example, how, then, do we stop fracking?

It is simple enough: we need to vote and become politically active, calling for legislation to end fracking.

However, even voting is not enough, as someone needs to bring this issue to the attention of politicians and the public. Indeed, someone needs to make it a thorn in the side of politicians. Enter activists, climate activists.

For example, in 2016 actor and climate activist Mark Ruffalo produced a short documentary called Dear Governor Brown that urged the former Governor of California to ban fracking (which, incidentally, he refused to do, in spite of Brown's commitment to mitigating the climate crisis).

You do not, of course, need to be a famous actor to be a climate activist. After all, Greta Thunberg was, just a short time ago, in many ways a pretty average high school student (though in other ways, an altogether extraordinarily one with the ability to see the climate crisis as a black-and-white issue and sustain a laser-like focus on the problem).

So, should we forgo personal actions like ditching our cars and instead work at being climate activists and getting the vote out?

First, I absolutely endorse climate activism. In fact, I think of myself not just as a professor, but first and foremost as a scholar/activist, a climate activist.

Second, as I never tire of telling people, if you can do only one thing to help mitigate the climate crisis and you do not have a lot of time to devote to the issue, you're in luck, as the single most important thing that you can do takes just an hour or two per year. Who doesn't have an hour or two a year to help save the planet?

What sort of magical action has this sort of power?

It's actually a pretty pedestrian act that many people take for granted – though they certainly should not – voting.

How do we vote on behalf of our planet, it's climate, and all the life that lives on it?

Cast you vote for candidates, from local to federal, advocating for sweeping climate policies, such as carbon pricing and the Green New Deal. In general, vote for candidates and initiatives that put people and the planet ahead of corporate interests.

And, if you have a little more time to spare, explain to five or more of your friends and family the importance of voting.

But what about personal actions, like foregoing beef, air travel, and having a car? Isn't doing so important?

I would argue that it absolutely is. Moreover, I am of the conviction that activism, voting, and personal action can be – and very often are – intimately related.

Let's take one of my favorite examples that I never tire of talking about: car use.

As climate scientist Michael Mann noted with respect to climate change, the 800 pound gorilla in the room is our "civilization's reliance on fossil fuels for energy and transport overall, which accounts for roughly two-thirds of global carbon emissions." As I have noted before, the average American's car accounts for about one fourth of our personal carbon footprints.

OK, let's assume that we decide to forgo owning car. Then what? In other words, how do we get around? Let's say you use a bike.

Well, if your city is anything like mine, the bike infrastructure there probably leaves a lot to be desired. In fact, it may well be dangerous, even deadly.

Allow me to explain for a minute or two as a way of introducing activism.

I live in downtown Santa Barbara, 10 miles from the university where I work. A 20 mile roundtrip commute on a bike may not sound very practical; however, I have a pedalec bike, which is a hybrid bike with a propulsion system not unlike a hybrid car, except instead of being powered by an electric motor and gasoline engine, it is powered by an electric motor and my peddling.

(Incidentally, a pedalec may sound like really new technology: however, when I was 16 years old, way back in 1976, I converted my first adult bicycle to a pedalec using a commercially available kit. Because of the first energy crisis in the US. in 1973, quite a few people were experimenting with alternative transportation, including electric assisted bikes. As it had a range

of about 25 miles and a top speed of about 25 MPH, it was surprisingly practical and could certainly have been used for my daily commute today. However, at the time, as I recall, I got laughed at quite a bit while riding it, especially to and from high school.)

In any event, since my current electric bike can travel 28 miles per hour (which is the speed limit for a bike such as mine) without my breaking a sweat, is actually a very viable transportation alternative that can often compete with car use for a number of reasons. For example:

- 1) Parking on my campus is a bit of a nightmare, meaning that you sometimes have to drive around for five or more minutes looking for a parking spot and then walk quite a ways to your destination. In contrast, I ride my bike right to my classes, which is very quick.
- 2) If you leave at the end of the day, there is often a significant traffic jam on the freeway heading back to Santa Barbara. I have never once encountered a traffic jam on the bike path!

Hence, my e-bike commute often takes just a tad more time than if I were commuting by car. As a bonus, assuming that I am peddling actively, my commute is a nice daily workout.

But there is a problem: there are only two main roads that lead from my house to my office. The first is a bike lane along the busiest street in town (State Street). When I say "bike lane," I really just mean that you are riding along the shoulder, separated from traffic by just a white line on the pavement. The second route, Modoc Street, which is the one I usually take, is more direct with less traffic. However, it too means that I am riding on the unprotected shoulder. What's worse, in places traffic is moving at 50 miles an hour alongside me.

Given the situation, it is perhaps not surprising (though still altogether mortifying) that four bicyclists have been killed along Modoc Street in the past few decades, including one last year.

So, even though I can make a commitment to a personal action (ditching a car for an e-bike, which people have been doing for over forty years now), the world is clearly not set up for e-bike riders like me. It wasn't 40 years ago: it still isn't today. Not to put too fine an edge on it, but not only is it difficult, it can be downright deadly.

Sadly, in the US, not much has changed in this regard in my lifetime.

What's to be done? The obvious action is to become an activist. In this case, a bicycle/climate activist.

I would not at all be surprised if you scoff at this idea. After all, am I really suggesting that advocating for bicycle lanes can play a serious role in mitigating the climate crisis?

In fact, I am.

Let's look at an example where such bicycle activism made a huge difference: Copenhagen. An astonishing 62% of people now commute to work or school by bike in Copenhagen.

You might be under the impression that this bicycle culture goes back many decades to the beginning of the 20th century when cars first came on the scene in Denmark. In fact, it is relatively recent (and profound) cultural change. I offer it as an example, as it proves that extraordinary cultural change — of just the kind that we need to combat the climate crisis — can indeed happen.

Allow me to quote from Wikipedia, which concisely lays out the history of bicycling in Copenhagen. Note 1) that it begins back in the early 1970s (1973 to be exact) with the first "energy crisis" that alerted much of the world that we needed to quickly wean ourselves off of fossil fuels – something, as I have noted elsewhere in this series, that the US. failed to do – and 2) that Copenhagen's remarkable transformation into a bicycle culture was a largely bottom-up phenomenon brought about by bicycle/environmental activists:

With the energy crisis, which hit Denmark harder than most countries, and the growing environmental movement in the 1970s, cycling experienced a renaissance. The Government was forced to introduce car-free Sundays to conserve oil reserves. Many city dwellers thought it was the best day of the week, and the Danish Cyclists Federation...organized massive demonstrations in Copenhagen and other major cities, demanding better infrastructure and safety for the city's cyclists. Another grassroots action cited for helping cycling infrastructure on the political agenda was operation "White Crosses" where white crosses were painted on the streets where a cyclist had been killed in traffic...

Although the first separate cycle tracks were constructed much earlier, they did not become the norm until the early 1980s...Politicians, although not very eager, gradually took up building cycle tracks on main roads and also began to develop its first coordinated strategies for increasing cycling in the municipality.

The <u>LA Times</u> nicely continues this history into the 21st century by noting that "[i]n recent years, cycling has enjoyed yet another surge in popularity – the result of constantly improving bike lanes coupled with fears of climate change. Global warming presents an existential threat to this Baltic Sea port, which lies just a few feet above sea level."

What would the climate impact be if the same number of Americans swapped their cars for bikes? Let's do a quick, back-of-the-napkin calculation: 62% of the population of Copenhagen times 4.6 metric tons of CO2 per year per car (the US. average) equals a reduction of 3.8 billion pounds of CO2 emissions per year. Again, that's 3.8 billion pounds, with a "B." And that's just for one relatively small city. Imagine the impact if this happened in cities across the US – and world.

It could be objected that bicycle commuting is not practical in many American locales, as it gets pretty cold in many U.S cities. However, it also gets cold in Copenhagen, as it is further north than any of the lower 48 states. In fact, it is far closer in latitude to Jeuno Alaska than to the rest of the US.

Note that what happened in Copenhagen happened on a local level, with activists forcing the city's local politicians to act.

When election time comes around, we might assume that the climate crisis is a national issue, which it is certainly is; however, it is also true that what happens in your local town (as with our example of Copenhagen) can have global consequences. Similarly, the reason that climate activists like Mark Ruffalo pressured the Governor of California was because he had ability to stop fracking in the state.

Hence, local, state, and national elections all play major roles in mitigating the climate crisis. Again, the local, city elections in Copenhagen have been responsible for keeping 3.8 billion pounds of CO2 or equivalent gasses from being released into the atmosphere every year.

And, of course, this all started with environmental activists. Note too that, starting in the 1970s, these activists were not focusing on climate change, but rather on a range of environmental concerns, especially the fear that our fossil fuel reserves were running out.

To put this in the terms that I introduced in a previous lecture, these bicycle/environmental activists from the 1970s acted on the knowledge that our fossil fuel economy was clearly problematic. In this sense, knowledge became power because it was acted upon – by activists.

When it comes to making a difference in the climate crisis, it is not a question of choosing either personal action or climate activism or becoming politically active. In many, many cases (as in the example of Copenhagen), all three are integrally connected.

I would argue the personal action has a special position, as it can help keep our focus on the prize on a daily basis. Everyday that we hop on a bike or forgo a burger, we remind ourselves that much needs to be done – and that we are, even if in a small way, doing something.

Doing such little things also sends a message to the rest of the world, as we lead by example. To echo a phrase often attributed to Gandhi, we become, indeed embody, the change that we want to see in the world.

I am curious to hear what you think about the roles that personal action, activism, and being politically active should play in the climate crisis.