

## Science for Peace

October 27, 2021

#### **President's Column**



Dear Members,

We shifted into high gear in October.

The executive spent considerable time on devising an action plan, with input from many board members. The plan sketches a vision of the world we want to create by  $2050\,$ 

along with the strategy and tactics to guide SfP's activities over the next five years.

We hope the plan will define not only who we are, but what we hope to achieve, and how. When the board has approved the action plan, we'll post it on sfpannounce for your comments. No plan is ever "finalized"!

Science for Peace will be present at the rally for the Global Day of Action/Climate Justice on Saturday, November 6th at 1 pm. Do plan to attend at Queen's Park (information below) and join the Science for Peace group behind our banner. Look for information on where to meet at Queen's Park on sfpannounce closer to the day.

The following day, Sunday, attend our joint webinar on "Canada's Climate Record: Broken Promises, Bright Future?" That's on November 7th at 4:30. For futher information, refer to Upcoming Events.

Under the leadership of Tom Deligiannis, we are moving ahead with the student forum on the dangers of nuclear weapons. Members of the Nuclear Weapons Working Group, now headed by Arnd Jurgensen, will meet online with Tom, our two interns, and the student representatives this Saturday to discuss the agenda and speakers for the mid-January forum.

Melisa Kuc informs me that many of our long-time members have not paid their membership dues for 2021. Please, please do so. Our expenses are low, but we are still still running a deficit. We depend on you to survive! Please click the Donate button on our website at <a href="scienceforpeace.ca">scienceforpeace.ca</a> and pay your fees or make a donation. You'll receive an immediate tax receipt from Canada Helps.

Richard Sandbrook Professor Emeritus of Political Science University of Toronto



#### What is happening in Glasgow

This jointly-sponsored one-hour webcast assembles six experts to reflect on Canada's climate record and future performance in the context of the COP26 climate summit in Glasgow. In brief segments of 5-10 minutes, our experts answer these key questions:

- · What is COP?
- · How adequate is the Liberal government's climate strategy?
- · What is the history of Canada's broken climate promises?
- · What are the challenges, in light of the IPCC's projections on emissions?
- · What is being achieved in Glasgow?
- · What can we do to promote a livable future?

#### **PANELISTS**

What is COP26 and what are major issues? -Gail Greer, SCAN! Critique of the Liberal Government's climate plan - David Robertson, SCAN! Canada's broken promises - Ali Hashemi, biotech entrepreneur Challenges to meeting climate goals by 2050 - Danny Harvey, climate scientists, U of T

What is happening now in Glasgow? -**Tamara Lorincz**, NGO delegate from VOW for Peace/ Mitchel Beer, EnergyMix

What can you do to help? -Lyn Adamson, ClimateFast Moderated by **Richard Sandbrook**, President of Science for Peace

Register Here.

### Global Day of Action: Saturday, November 6 at 1 pm at Queen's Park.

How can humanity reduce the dangers and risks of nuclear weapons? As the world grapples with the Covid pandemic and an increasingly serious global climate crisis, thousands of nuclear weapons remain in arsenals around the world. Many of these weapons are ready to be launched within minutes, threatening humanity with nuclear catastrophe.



University student virtual forum on limiting and eliminating the dangers of nuclear weapons, mid-January 2022.

#### **Recent Articles**



## Judy Deutsch: Deconstructing Electric Vehicles on the Eve of Glasgow COP26

A lead human-interest story in the weekend Wheels section of a major Canadian newspaper is about a 2-car family's transitioning from a hybrid to an EV as they "try to be more sustainable". They upgrade their daily car every few years to seek "improvements in fuel efficiency, reliability and technology."



## Arnd Jurgensen: Science for Peace in the Decisive Decade

Today we face at least three overlapping, existential crises: militarism, the climate crisis and the collapse of biodiversity. While interrelated in many complex ways, these are separate threats, in that solving one will not eliminate the others. Climate change is certainly exacerbating the decline of species in countless ways.

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# Michel Duguay: Climate preservation with lithium-ion and sodium-ion batteries

Emissions of greenhouse gases by automobile internal combustion engines and thermal electric power plants could be largely eliminated by moving over to wind and solar power sources, with storage provided by lithium-ion and sodium-ion batteries.

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#### **Focus on Members: Bill Browett**



Like many of us who can trace our activism back to the 1960s, 1970s and 1980s, and specifically as a scientist in the 1970s and 1980s, I needed a focus for my activism, and found it in Science for Peace. It was the Canadian version of other important organizations, such as Rocky Mountain Institute, Union of Concerned Scientists, or The Bulletin of Atomic Scientists. The Bulletin of Atomic Scientists is, of course, the granddaddy organization that combines scientific knowledge with critical thinking and a progressive set of values that would stop our trajectory toward a dystopian future. These organizations provided outlets where STEM (Science, Technology, Engineering, Mathematics) activists could come out of the closet, i.e., think beyond the Age of Enlightenment. Nonetheless, we still face multiple existential threats. Together and individually, these existential threats are sending us toward a dystopian future. Why are we still on this trajectory?

As a budding scientist, I grew up on books like:

The Limits to Growth, 1972, Donella H. Meadows, Dennis L. Meadows, Jørgen Randers, William W. Behrens III

Food pollution: The violation of our inner ecology, 1973, Gene Marine No Safe Place, 1977, Warner Troyer. (A book about mercury poisoning in Northern Ontario waters.)

These books provided clear analyses that we were heading for a dystopian future, even without the existential threat of nuclear weapons. These books and studies formed formed the basis for my activism as a scientist. (As an aside and with hindsight, I can only think that the authors of these books and studies would agree that their warnings were not bold enough!)

Finding Science for Peace in the 1980s was a relief. Here was a group of scientists and mathematicians who combined humanistic and peace values with the analytical scientific reasoning. I am not criticizing the environmental, alternative energy, or social justice groups and organizations that I have participated in or been allied with. For the most part, I have agreed with their values and goals. However, STEM expertise was often lacking in these groups. What expertise there was tended to be based on authority and argument, i.e., confidence in the argument. Such are traits that today would be characterized as the Dunning-Kruger effect, and traits that we often attribute to those who don't agree with us. (Note: "The Dunning-Kruger effect is a hypothetical cognitive bias stating that people with low ability at a task overestimate their own ability …")

It has been clear, to be effective activists, we of course need both the analytical tools and values that provide an ethical compass. In those "good old days" I put a lot of faith in "enlightenment" -- faith that evidence and analysis alone would win the day, that is, bring about the changes that would prevent the obvious dystopian future of nuclear annihilation, nuclear power accidents, or environmental catastrophes. With hindsight, I and others struggled with understanding the complexities of human psychology that not only influence their own analyses and evidence, but also the rejection of evidence and analyses. Given the existential risks that we face in the anthropocene, we have failed to make the critical changes that are needed to avoid a dystopian future.

The hill of understanding we have to climb is this: what does it take to create attitudes (world views, values, the psychological traits, etc.) that define us, and as activists, address the complexities of changing attitudes?

My current assessment is that we have failed to take into account the roles of vested interests and cognitive dissonance. Both, along with the Dunning–Kruger effect, form barriers to change. I include myself in the challenges of dealing with the Dunning–Kruger effect, vested interests, and cognitive dissonance. If the pandemic and associated miscommunication of scientific and public health information has taught me nothing else, it is that, as scientists, we can't be too humble in the face of limits of knowledge, risk, uncertainty in the evidence, vested interests and cognitive dissonance, as well as the Dunning–Kruger effect.

I am not saying that evidence, analyses, and argument, with clear and concise presentations tailored for diverse audiences, have not been effective. This type of presentation is the foundation for change. However, when we make presentations, we must do a better job of addressing the needs of the receivers of the messages. Recipients have a wide range of values, experiences and interest that we may or may not share. Often presentations appear to fail to address the specific vested interests of the listeners or debaters. Presenters may both perceive the information very differently from the receiver, and have very different vested interests. Simply put, presentations often fail to establish trust.

My activism is likely more subtle than it has been in the past. It is more about role modelling behaviours than winning arguments, i.e., nudging rather than demanding. It is more about listening and learning from good communicators, for example, Katharine Hayhoe, who combines scientific acumen as a climate scientist, with strong moral values as a person of Christian faith. Although I don't share any religious faith, clearly Hayhoe is an effective communicator of climate science with people who share her religious faith. Finding common values from which to build trust is clearly a critical tool for all activists to develop; it is effective in addressing some vested interests that contribute to the resistance to change.

My conclusion is that role modelling matters; building trust matters; recognizing and respecting the role of vested interests matters. Respecting the psychology and cultures of the people we are trying to reach matter, as much as the evidence and analysis that we bring to them. These are the starting points of dialogue that can bring about change, and eventually peace.

Perhaps the simplest summary is a quote from Henry James, (1843-1916): "Three things in human life are important. The first is to be kind. The second is to be kind. And the third is to be kind." I interpret these kindnesses as: Be kind to yourself; Be kind to others; Be kind to the world.

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