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# Thinkers Lodge Summit
## on Nuclear and Climate Crises

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### *Interviews with the Thinkers*

# *Nuclear Weapons: Forgotten, not gone*

*By Karalee Clerk*

*"The more countries who have nuclear weapons, the greater the possibility of war or making mistakes."* Talia Weiss

It can be said with absolute certainty that nuclear weapons remain capable of annihilation at a level more devastating to humankind than any other known threat.

It can also be said that the production and stockpiling of nuclear weapons remains on the rise and inextricably integrated into national strategies.

Billions of , in fact, continue to be siphoned into the tools of death and destruction, yet, the concept of bringing an end to the arms race has somehow receded into the background of human consciousness.

The world appears willingly oblivious. And that's a huge problem.

Three Thinkers share their thoughts on nuclear weapons, sparing no truths. And really, why should they?

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## TALIA WEISS

Originally from Chicago, Talia Weiss has accomplished a lot in her 25 years. After finishing a Masters in Political Science, followed by a year working in research, she's back at school, at Yale, digging into her PhD in Physics, and more specifically, into the behaviour of neutrinos, which are sub-atomic particles that are emitted when the nuclei of atoms decay.

While the connection between poli-sci and physics may not seem obvious to most, it is to Talia. She's intensely attuned to nuclear issues and risks, and she intends to work towards decreasing or eliminating nuclear threat.

She's taking a unique approach. She believes having a deep knowledge of physics and politics will help bridge the divide between science and human psychology, spurring the conversations necessary to bring the world closer to nuclear disarmament. Her motivation comes in part comes from the history of physicists who came before her, including those who discovered the physics underlying nuclear weapons.

### *The early years…*

My experiences in early in life were not particularly connected to nuclear issues. That came later.

In middle school, I was awed by the way that physics encompassed both the building blocks of the universe and large physical structures, simultaneously. I became very curious about questions of why we're here and what's out there, and in grade 7th, I filled a notebook with a stream of questions about the universe and god. That curiosity drove me toward astrophysics and then particle physics. But, I found physics alone wasn't fully satisfying.

My mom studied psychology and my dad studied poli-sci, focusing on the middle east. From my parents, I had an awareness of world affairs, and I found the connections between individuals and countries interesting. So, in university, I added Political Science into the mix, and interned at an MIT Washington office that focused on technology policy issues—ones I found of great concern.

### *Mentors and inspiration…*

I've been lucky to have been inspired by many others, and two physics mentors in particular, David Kaiser, a physicists and science historian, and Joe Formaggio, whose work focuses on issues beyond physics and questions of policy. Kennette Benedict gave me perspective and insights from the history of nuclear weapons that informed my study of modern biotechnology, while David Wright and Lisbeth Gronlund also supported my engagement with nuclear issues and set a valuable example for me – as PhD physicists who study and write about both technical and policy aspects of international security.

### *Learning from the past…*

In my junior year of college, I learned about physicists who were involved with Nazi program in WWII. A number involved in the program were names familiar to me. They felt as close to me as a teacher or a friend. Learning that they had been involved on a program for the Nazis was upsetting.

But, having someone who you identify with that did something immoral or unethical made me think about how an individual gets there, and that thinking helps me catalyze my thoughts around responsibility as a scientist and how to identify with those who have made danger in the world—such as nuclear weapons.

Scientists have narratives that help tell a certain story—the view that progress is inevitable and therefore impact is inevitable. But there is such a thing as slowing down science, which in some cases is worth considering, and the idea of waiting until you know more.

### *Having conversations…*

I have an innate need to mitigate the impacts of nuclear weapons, and I want to be part of the conversations that bring about change.

To fully understand the stakes, I wanted to understand nuclear reactions and gain some core knowledge from the science side, to provide background to nuclear issues. At the same time, as someone interested in how human's behave, I also had an interest in how politics emerge from human psychology and the development of principles for resolving issues.

It's important to have understandings in both areas to ensure that there is continual and clear communication, so groups of experts can talk to each other and engage with the public Blending the two helps bridge the divide between science and policy.

And that's a work in progress.

### *Breaking the silence…*

There are a couple reasons why no one's talking about nuclear weapons right now. I think there's some truth to older white males dominating that conversation.

There's also language very specific to nuclear policy, war planning, science and technology. The terminology is really helpful for experts to communicate, but at the same time, the vocabulary creates silos that keep different experts apart and makes it difficult to engage or involve the public.

But, there's also something else happening that's similar to what we're seeing with COVID.

With COVID, the public who was waiting for vaccines perceived a relative end to the problem--when vaccines became available, the problem would go away. But what happened is the form of the problem *changed*, with the consequences of anti-vaxxers and Delta altering the ending everyone was waiting for. Where the end may be now requires a mindset adjustment for people who so wanted to believe the danger would be over.

A similar thing happened at end of the cold war. People who had learned to think about nuclear danger believed there had been a relative end to that particular danger. People of the world do not face or think about this day to day or at all because they haven't done the adjustment. Today, we may be vaguely aware of nuclear risk, but we haven't done the acknowledgement that the end we saw was not the end, and the risk remains over all of our heads, all of the time.

Instead, the world has forgotten the need to worry about nuclear accidents and unintentional nuclear war.

### *Risks and dangers…*

All nations are concerned with safety, and nuclear weapons insert a strong allure to provide 'safety' and protection from other countries. Yet, the more countries who have nuclear weapons, the greater the possibility of war or making mistakes.

There have been several occasions when the world was on the brink of nuclear war, and that risk has not gone away. And although the global super power threat has to some extent receded, the risk of regional conflict and nuclear terror threat is on the rise.

At the same time, to some extent no one wants a war, and the way disarmament progressed in the past was by the greater desire to avoid it. But that is not necessarily the same with smaller countries, and all could change faster than we think. Just think of the tension with China during the Trump years and the flare ups with Russia. The international scene can pivot quickly and puts us in danger with super powers.

### *Competing for airtime…*

The visible issues right now are Climate Change and COVID, which are very pressing. It's difficult for humankind to focus on more than one existential risk at once, and there are already two on the table.

But, now is the opportunity for it. During Trump's time in office, the U.S. retreated from international arms control efforts while "modernizing" the nuclear arsenal, and this did to some extent bring the topic to national attention. Biden is far more receptive to arms control efforts, meaning we have an opportunity to push the conversations forward.

We somehow need to inject the topic into the current existential conversations and use this opportunity.

### *Getting back on the radar …*

Education is critical, along with another factor, using major events if or when they occur, such as the 80's arms buildup and the Cuban Missile Crisis, to propel the topic into the headlines.

Creating a common language and speaking about the issues in plainly is also critical for the public to hear and gain understanding. And though it may be difficult, people need to be shown what to do about the issue and how to take action. That is key.

If we work to engage the public with nuclear issues, we need to to provide an action to follow, otherwise people might be left with a great fear that can be painful and disruptive to their lives. I'm still learning about what those actions are, but in the meantime, engaging with groups is an option, and there are certainly groups that exist, such as Student Pugwash or Global Zero, amongst others. Individuals can also call or connect with government representatives, or send form letters detailing the issues to elected officials.

### *A path to disarmament…*

History has shown that large-scale public opinion has been a factor to contend with by policy makers. In the early 80s, for example, anti-nuclear protests led to the Reykjavík summit of 1986, during which President Reagan and Soviet Premier Gorbachev met to talk

about nuclear arms reduction. The meeting was a contributing factor turning point of the cold war.

There's also the approach of working from the inside out, with those in positions of influence *within* the structure of governments. It seems to me that the US democratic party has taken on aspects of nuclear policy, and that is very promising because they are working on the inside, influential voices are advocating for changes to reduce nuclear risks in ways such as No first use and limiting sole presidential authority to launch. It's complicated, of course, but it's positive that Democrats have taken notice.

Being able to work from both outside and inside is a great position, at this moment, for people can make impact on the issue.

## BHREAGH MCKINNON

Twenty-one year old Bhreagh McKinnon, grew up in Texas and moved to Cape Breton with her family at fourteen. Being her parents were from the region, and she'd spent many summers there, it was an easy transition.

Being a product of the American education systems, "nuclear weapons" hadn't been a part of her vocabulary. Neither did she have classes on peace or international relations and she'd never heard of NATO, the holocaust, Hiroshima, and barely knew about WWII. The education system was fairly bare bones and localized, and while in Texas, she learned about Texas.

It wasn't until she attended university in Nova Scotia that she began to gain an understanding of history, conflict, and nuclear weapons. In her second year of study, she took a class by Professor Leanne Broadhead on nuclear weapons, with plans to drop the course if it was too existential. Instead, she found the class to be compelling and easy to comprehend and realized that nuclear weapons were bad. It was just that simple.

### *Institutionalized revisionism…*

The threat of nuclear weapons is a hassle to teach and to learn. It's mentally taxing and hard to comprehend on a personal level. It's also not necessarily in the best interest of the Western powers to talk about this threat.

It works in the government's favour *not* to educate people about nuclear weapons. It's actually a clever way to frame the narrative—if we're not taught about nuclear weapons in school, if we don't know what's being spent on them or what's going on—we don't learn to question. No matter what country you live in, being kept in the dark means we, as citizens, are unable to complain or make any real change.

Democracy is very limited, and in reality, we're losing our freedoms. Our government is successful because we don't know what they're doing, and they reserve this right *not to tell us*. It's something we don't necessarily think about in a democracy, that information is kept from us.

### *The biggest truck in the sandbox makes the rules…*

Right now, America is 100% the biggest truck in the nuclear weapon sandbox. They have one of the largest militaries in the world, with billions spent on defense every day. And basically, they're a massive bully. With the greatest stronghold of weapons in the world, they can pretty much do whatever they want. And they do. They developed nuclear weapons, they set them off to prove their point, and now everyone bows to them, Canada included.

### *The threat…*

The threat of nuclear weapons should be high up on our list of fears. The bombs we have are catastrophically larger than the ones dropped on Hiroshima and Nagasaki, and everyone has them—the U.S., China, Russia and other countries.

Which country is the biggest threat is difficult to pin down because it depends so much on political unrest or ambitions. It really comes down to whoever is having a bad day. All countries with nuclear armaments can be trigger happy.

### *The aftermath…*

The chances of an attack on Western soil are low, and the more likely targets are in the Middle East or Southern Asia. Regardless of where, though, if a country were bombed it would be a massive humanitarian event. All infrastructure would be vaporized and chunks of land would be unlivable for years. There would be weather fall out, global anguish and massive immigration. The scale of the potential devastation is unimaginable, with the worst-case scenario being a full-on nuclear winter.

And then there is the question of who would be responsible for the cleanup, after a nuclear bombing. No NATO country would want to help because it would put them in the hot seat, and there would be international fights taking place about who should be sending aid. The stakes are high.

### *A voice in the deafening silence…*

I wish with all my heart that in 20 years there would be no nuclear weapons, but there are some hard nuts to crack. First of all, the topic is verboten, and politicians aren't talking.

The threat isn't on the minds of Canadian or American citizens, either, because we don't see the facilities that make nuclear weapons or the weapons being transported. What we know about nuclear weapons is what can be shown through words, books, or pictures. So, we don't observe the threat the same way as Climate Change or police brutality, through actual real-time events.

I think what needs to happen is greater involvement with grassroots movements. There are many movements already happening, and they can make a true difference. My hope is that they can gain the traction needed before we see a cataclysmic event.

### *Carrying on…*

I don't feel like dying or being vaporized, nor do I want that for anyone else. I just want people to be happy, and getting rid of nuclear weapons can help.

I can be pretty cynical, but I would lose my mind if I dwelt on the negative or carried a pessimistic attitude. But we also don't have to be "sitting ducks," kept in the dark. I am going to continue to work to educate others, and I will hold out in my belief that things will change.

We have a history of doing just that.

## JESSICA BUDLONG

Nuclear weapons weren't on Jessica Budlong's radar the first time she went to Washington, D.C. for an internship. But, after that experience, she realized the threat of nuclear weapons was something she cared about, deeply, and also something she needed to bring to the attention of the world.

Born in Michigan, Jessica completed her BA in International Relations & Economics and Business at the Cornell College and is now expecting to complete her Master's degree at University of Denver by the end of this year. Post-graduation, she'll begin working for the US Department of Treasury, beginning her journey to create the change she wants to see from within the government, though she isn't waiting until then to get involved.

To expand the conversations and introduce more diversity into the nuclear space, Jessica founded the Nuclear Fusion Project (NFP) in 2020, working to bring new voices and new ideas to the problem. Knowing that other people and countries have opinions on nuclear weapons that are not being heard, she chose to act and created a place where people from all different places and occupations can come together and talk. At only twenty-two, Jessica is determined to build her generation into one ready to lead and ready to deal with the nuclear threat which has been looming over all us far too long.

### *Getting the news back in the headlines…*

With all the devastation going on in the world right now, it's hard to get a topic like nuclear weapons in the news. No one wants to talk about it.

Getting the message out there is the responsibility of all of us. We can't put it on *just* the think tank community or *just* the N.G.O. community or *just* the government. People get their news from different sources, and there needs to be an effort across the board to get the message to

the people through op-eds, speakers, reports. Everything we do needs to be made accessible in a way that folds in everybody.

### *Reframing the message…*

We should think reframing the threat of nuclear weapons to fit a more positive narrative. If we can make nuclear weapons less of a doomsday situation and bring hope to the topic, it might help keep it from becoming one bad thing on top of a pile of other bad things.

Media outlets like *ReThink* are doing a great job of bringing outlets to the experts and connecting the message to the audience, but there needs to be a bigger push. We need to focus on making the matter easier to understand for the average person. Podcasts like *The Deal* by Jeffrey Lewis are a great opportunity for people to break into the space, but they suffer from people inside the field discrediting them and making people feel unwelcome.

### *The nuclear barrier…*

One of the issues in the nuclear field is inaccessibility. The language, the acronyms, how we talk to each other about the issues, all of these have become barriers built within the expert community that excludes the regular population from the conversation.

Unfortunately, gatekeeping in the nuclear field hasn't broken down as much as it has in other fields, and it's probably one of its greatest challenges. For a long time, the field has been run by 'pale male Yales' which are groups of white men from Ivy league schools who benefitted from gatekeeping mechanisms. Even today, the 'experts' look at young people, women, interns and more—and they don't trust them to do anything important.

### *Including all voices…*

Diversity in nuclear is making progress, though it's moving a little slower than we need. It's more difficult than some other fields because its small and people generally don't feel welcome. In a tiny space, it's hard to break down doors.

I'm lucky in that I've had a lot of support, and I've been able to have those conversations, plus having accelerated my schooling, I'm used to being the youngest person, so it doesn't deter me in the same way it does people who are on a more traditional path. Though it's hard to build relationships and feel welcome, I've been able to do it, and I try to help others along the way.

The good news is that many organizations have been seeing greater diversity of representation, and the more we see of that in the leadership of these organizations, the better. For example, Emma Belcher recently became president of the Ploughshares Fund, which really opened eyes in the field. These people and organizations are finally getting some recognition.

### *Domestic issues…*

One of the problems with the conversations taking place about nuclear disarmament, at least in the United States, is the domestic focus. The government knows nuclear as an international issue, but when conversations about building policies and coalitions to help move the idea

forward begin to happen, they quickly becomes insular at all levels. We think of the problem as being a U.S. issue rather than something that effects the entire world, and that other countries would like to be involved in the conversation. We actually forget others have opinions.

### *Piggy-backing on other conversations…*

It's a challenge, but we need to bring the topic of nuclear disarmament to the forefront, and the best way to do it is to connect nuclear with other issues. Not in a news grabbing way such as '*Taiwan needs nuclear weapons to protect itself from being the next Afghanistan*,' but by tying it into budgetary issues.

We need to tie nuclear into the conversation is a very real way, and we need to be making a holistic effort to bring in new ways of thinking. For example, when we're talking about healthcare or military spending, we should also be speaking about topics—"what is the healthcare like for people who have been effected by nuclear testing?" and "what are we spending on nuclear weapons?"

With projects like the NFP, we're trying to bring the conversation to areas outside the U.S. Currently, we span across eleven different countries, and we're seeing huge engagement from areas where you wouldn't expect the population to have a strong opinion on nuclear weapons. People in places like Canada, Brazil, and Singapore reach out to us because there is no other place to have conversations like these with American experts.

### *Youth taking action…*

The government moves slowly, so it's important to have conversations with the younger generations now. We need to form our own ideas and build ourselves up until we're the leaders, and we are the ones making the decisions.

Exploring ideas early on, we can implement them as future leaders and that's where I see the most hope for progress. Young people are tired of being told "that's the way it has to be because that's the way it always has been." I've had people my age approach me to ask about NFP and how they could start something similar, they know it's up to them to make the change they want to see.

### *What happens when the funds go away …*

With the loss of funding from the MacArthur Foundation, which accounted for nearly half of the funding for nuclear disarmament, the nuclear field has been really shaken. I warn people to be careful of the non-profit space right now – they're facing a lot of changes because of the loss of funds, and it's made the field even less attractive than it already was for young people.

There's a lack of funding for career advancement or mid-level positions. You can either be an intern or a senior-level person, but there's nothing in between. Loss of donors has been a grim story across the board, and I worry that it becomes yet another reason why nuclear is inaccessible.

### *Hope in growth…*

One of my biggest pet peeves is when people complain about something they aren't willing do anything about it. I'm in the system, and I'm producing research and trying to work for the government, and even just being in the space and having the conversations is going to help.

There is a growing international community for disarmament, and with everything moving online there are more opportunities for bigger and broader communities to become involved in these discussions. Half of NFP are not experts or in the nuclear field. They're just people interested in the topic, so you can already see we're starting to bring in new people thanks to the online environment.

Technology has helped us connect across our ideas across the world and is showing us that things don't have to be the way they've always been.