

Is there an ecological path to a nuclear weapon-free world?

By N.A.J. Taylor

[W]e should attempt to achieve a gradual broadening of the zones of the world from which nuclear weapons are prohibited to a point where the territories of Powers which possess those terrible tools of mass destruction will become something like contaminated islets subjected to quarantine.
Alfonso Robles, November 1974¹

In November 2012, the opening session of the Athens Dialogue on a Middle East WMD-free Zone that I co-convoked with Joseph A. Camilleri, Michael Hamel-Green and others had participants “imagine the future” 5, 10 and even 20 years from now. As we noted in our final report:

The twenty-year period was chosen as a way of enabling participants to think beyond the powerful constraints currently limiting the room for maneuver available to the key protagonists. [...] It is fair to say that many found this an extremely difficult exercise, with most unwilling or unable to let their imaginations run free. (Camilleri et al. 2013, 28; See also Taylor, Camilleri, and Hamel-Green 2013)

Recently I have come across two separate calls for ideas on a world free of nuclear weapons— one by Michael Hamel-Green (2015) and the other by David Krieger (2015).

Hamel-Green's is a forum about “nuclear threats”. Though very little of the discussion so far has queried what to be nuclear is (or isn't) and what precisely those threats are (or not). The preamble shared by the moderator, Michael Hamel-Green, does allude to “human and planetary catastrophe”, though the notion of “nuclear threats” that is carried through the subsequent discussion is conceived in strictly human-centred terms. What is nuclear about nuclear threats for participants are nuclear weapons and war, and what is threatened by those instruments of terror is humanity's continued existence.

Elsewhere, David Krieger calls for ideas or “paths” towards a world “without nuclear weapons”. To proceed according to such a myopic, human-centric approach to nuclear threats as do Krieger and Hamel-Green has become commonplace. Though arguably, it is neither feasible nor advisable. I therefore wondered how I might let my own imagination “run free.” For Hamel-Green Krieger's vision, so often dismissed as utopian or worse, does in fact remain both realistic and realizable (if we take his plea for a world empty of nuclear weapons to mean a managing a planet with lots of disarmed ones). To maintain otherwise is to forget what has been achieved over recent decades in variously banning and stigmatizing landmines, cluster munitions and chemical weapons—themselves inhumane or indiscriminate weapons of different types. Whilst nuclear weapons and war may well be different-in-kind to all others, arguably the political and legal rocks-in-the-road may continue to be pushed aside just the same, if only we open our minds to the very possibility of it.

What I have come up with will demand that we let our imaginations run free alright. Indeed, I foresee that the path that I navigate here will be particularly challenging for the Anglo-American men who continue to dominate the nuclear literature and policy, including even Hamel-Green and Krieger.² Whereas it is commonplace for contemporary discourse on nuclear governance to

¹ General Assembly, First Committee provisional verbatim record of the Two Thousand and Eighteenth Meeting, UN Document A/C.1/PV.2018, 13 November 1974, p.32.

² To be sure, this ecological path is one I have joined, not forged alone in the forest. Whilst there is relatively very little written from the perspective of ecology in the nuclear literature, the nuclear winter debate of the late 1970s and 1980s surely did introduce ecological thinking to nuclear ones. The work of Richard Routley/Sylvan has made, however, the greatest influence on my own thinking.

claim that the only viable path *forward* is to argue for a *global* nuclear convention based on *humanitarian* arguments, this article imagines an alternative path that is at once: *historical*, *local*, and *ecological*. This is achieved by first querying what is “nuclear” about nuclear weapons, and whether we can actually live in a world “without” them from an ecological perspective. In this way, we start our study of nuclear history by venturing into the logic of Earth’s planetary future. In so doing a challenge arises in the second section for future nuclear disarmament policy in which divergent paths of otherwise contrasting means (humanitarian/ecological) and ends (global/local) demand closer examination. In the third—and final—section, I speculate as to how these paths—the humanitarian/ecological, and the global/local—may, if at all, be reconciled. To do so, I return to Alfonso Robles’ original motivation for developing the nuclear-weapon-free zone concept, wherein the expanding matrix of regional, zonal arrangements come to recast nuclear-weapon states as “contaminated islets subjected to quarantine.” I reach the conclusion that there are in fact local and ecological paths to global and humanitarian ends.

Approaching nuclear weapons ecologically

Hamel-Green and Krieger’s forums are about “nuclear weapons”. Though I can find very little of the discussion in them which has queried what to be “nuclear” is (or isn’t) and what precisely “weapons” are (or not). Clarifying definitions is always a valuable though often neglected exercise, and to the argument being advanced here doing so is absolutely critical.

Krieger’s preamble does allude to non-human forms of life and materiality when he talks about the threat nuclear weapons and war pose to “most other forms of complex life”. However, the notion of nuclear harms and threats that is carried through the subsequent discussion is conceived in strictly human-centered terms. Krieger calls for responses from a variety of perspectives or worldviews, but these include only “legal, moral, organizational, political, economic, as well as [...] psychology, sociology, anthropology, and various forms of security (national, international, global, and human security).” What is *nuclear* about nuclear threats for participants in this forum are nuclear weapons and war, and what value is threatened by those instruments of terror is humanity’s continued existence. Human extinction trumps all else, even planetary collapse. To proceed according to such a myopic, human-centric approach to nuclear threats has become commonplace. However, to do so is both infeasible and inadvisable.

Now, imagine a world already empty of nuclear weapons. Because of our efforts, every last nuclear weapon has been disarmed and eliminated. How can this be? Disarmed nuclear weapons become high-level radioactive nuclear waste. This waste, from the disarmed nuclear weapons, will itself need to be safely and securely stored for up to one (1) million years from the possibility of human intervention or biospheric disruptions in the Earth system. We conveniently, though incorrectly, call this process, “disposal”, though it might more accurately be called deferral since our world empty of nuclear weapons would still leave the door open to other, nuclear, threats and harms. There is no need to adopt a non-anthropocentric (or non-human centric) worldview in order to realize that a world “without nuclear weapons” would still threaten our bodies and biospheres.

Of course we do not live in such a world. We remain terrorized by the immanence of nuclear harms and threats that include not only nuclear weapons and war, but the threat of harm by way of their use, as well as the related problems of accidents and waste. Thus from an ecological perspective, the world can never be truly “free of nuclear weapons”, however sound the management of the radioactive waste into the far-future may prove to be.

In sum, this brief intervention has called for a greater attunement to the impact of nuclear harms and threats on the beings (e.g. animals) and things (e.g. the air) that comprise the non-human world. As producers of the Anthropocene, we all no doubt already knew this, though we must not be complacent by neglecting to acknowledge that nuclear harms violate not only the human body, but also the global biosphere on which all life depends. It is my view that the

humanitarian arguments to nuclear abolition—as distinct from the ecological ones that I am proposing—tend to lull us humans into forgetting what George Wald (1964, 601) once described as the “necessary conditions for life.” Surely it is this above all else by which which mean: nuclear weapons threaten humans and nonhumans alike.

Navigating an alternative, ecological, path

Now that we have established how an ecological approach to nuclear weapons and war differs from the commonplace one, we can now begin to respond to Hamel-Green and Krieger’s call by forging a new path towards a world of wholly-disarmed nuclear weapons.

It seems to me that there are at least two paths. The first, which is widely favored, is the enactment of a global nuclear weapons ban based on *humanitarian* arguments. Such arguments concern “human suffering”, as well as their “victims and rights” and “the very survival of humanity.” The exemplar of this position is the effort by the coalition of state and civil society actors that is campaigning for a global nuclear convention (ICAN 2014).

The second path, which may at times run parallel or at least intersect the first, is *locally* evident when viewed in *ecological* terms. Such arguments rest on the idea already discussed that what we are really talking about when we speak of the immorality of nuclear weapons and war is in fact the “necessary conditions for life” such as breathable air and drinkable water.

Indeed, if nuclear harms are fundamentally ecological, as I have been arguing, then it should be possible to discern this development in the practice of nuclear policy. In this section I describe how the proposal for a world “without nuclear weapons,” as is being explored in this forum, may be informed by a discussion of an unlikely source: the emergence of regional, nuclear-weapon-free zones (NWFZs). Such NWFZs are unique in that their preclusions are more restrictively related to the “development, manufacturing, control, possession, testing, stationing or transporting” of nuclear weapons within the specified territory of the zone, and therefore do permit a wider range of nuclear activities than do nuclear-free zones. Land-based zones cover the territories of some 112 states, including all of the Southern Hemisphere. In addition, there are—proceeding the establishment of the five land-based zones—related agreements that prohibit nuclear weapons from Antarctica, the seabed and outer space as well as their testing in the atmosphere, in outer space and underwater and “in any other environment if the explosion would cause radioactive debris to be present outside the borders of the state conducting the explosion”.

All this is now commonplace. My claim here is both different and novel in that it attempts instead to identify and analyze how these zonal prohibitions may be re-imagined as protected zones of life, whereby solidarity from shared vulnerability is spatially expanded to the global biosphere. This hypothesis accords with—yet differs from—the more widely-held view of nuclear policy as following a linear civilizing process that may be explained as part of a broader harm narrative in which unnecessary pain, suffering and vulnerability to the human body is avoided. It is this dominant, anthropocentric (or human-centered) view, whilst variously evident, that I characterize as operating within what I call the *human frame*.

Counter to this, an ecological perspective emphasizes instead the multi-dimensionality of these zonal arrangements. This multi-dimensionality manifests itself in two ways. First, nuclear-weapon-free zones variously prohibit nuclear activities in inhabited and uninhabited areas based on an ecological awareness of the mutual implication and co-constitution of humanity in Earth’s biosphere. Second, the rationale for doing so often rest on ecological arguments, as in the Central Asian Treaty.

For the nuclear arms control and disarmament specialist, especially those from Anglo-American intellectual traditions, the ecological perspective advanced here will perhaps seem foreign or antithetical to what is typically regarded as a scholarly understanding of nuclear policy. This is

precisely the point—the moment when one breaks out of the human frame. More engaged critics among them will point out that the Latin American NWFZ was merely a positive outgrowth of the Cuban Missile Crisis, or that the absence of an NWFZ for the Arctic is testament to the harsh realities of Cold War politics. For many cynics, such empirical facts vastly diminish the value of speculative exercises about what nuclear harms—and our responses to them—can tell us about cosmopolitan or universal solidarity with the global biosphere on which life depends. And yet, as I have argued elsewhere, no single theoretical approach has yet satisfactorily explained the surprising extent of regional denuclearization (Taylor, Camilleri, and Hamel-Green 2013, 81). Similarly, for the scientific specialist with training in cosmology or Earth Systems Science, many of my remarks about Earth and its cosmic setting that remain contested or over-simplified in my analysis will surely frustrate, annoy, and disappoint. To those who come to share this view my response would be that the benefit of attempting to bring these otherwise incommensurate ideas together was deemed worth the wager.

A local path to global ends

The task remains, however, to advance such a local approach in order to more adequately respond to Hamel-Green and Krieger's call for a world "without nuclear weapons". For this, we must revisit Robles' original vision, wherein he envisions "a gradual broadening of the zones of the world from which nuclear weapons are prohibited to a point where the territories of Powers which possess those terrible tools of mass destruction will become something like contaminated islets subjected to quarantine."

In at least one way, we have already fulfilled the promise of Robles' vision. Almost the entire Southern Hemisphere is rid of nuclear weapons. Additionally, various components of Earth's biosphere are now protected by targeted nuclear test bans in the atmosphere, in space, on the seabed and elsewhere. The fledgling Comprehensive Test Ban Treaty Organization (CTBTO) monitors the Earth for even the faintest signs of non-compliance. And it is widely predicted for any future possible nuclear war to take place largely in the Northern Hemisphere, by which I mean by Northern powers against targets in the Northern Hemisphere, with biospheric effects forecast by a consensus in the nuclear winter literature that will be largely most severely—though not exclusively—confined to the North.³

Thus, from an ecological or else cosmic point-of-view, it may well seem that Robles' intention for the nuclear weapon-free zones to "quarantine" the nuclear weapon to specific territories is in fact well on the way to being achieved. The local path which adopted the nuclear weapon-free zone as its means has, in at least some ways, arguably already reached the global ends.

Conclusion

This article set out to intervene in the nuclear discourse that claims that the only viable way forward towards a world "without nuclear weapons" is both humanitarian and global. It did so in two ways. First, it explored whether a world "without nuclear weapons" is at all possible, given that disarmed nuclear weapons become high-level radioactive nuclear waste. It did so by adopting an ecological as opposed to a humanitarian perspective. Second, it examined the existing matrix of nuclear-weapon-free zones, and found that such regional nuclear governance instruments have proven to be successful whereas the humanitarian arguments surrounding a global nuclear convention has achieved relatively little.

From this, a challenge emerges for future nuclear disarmament policy in which otherwise contrasting means (humanitarian/ecological) and ends (global/regional) come into conflict, and

³ Now is not the time to systematically defend each of the provocative claims that have just been made. Although the restrictions of this forum do not permit it, each has or will be defended in turn in my writings elsewhere.

therefore must be reconciled if we are indeed to ever live in a world free of these terrible weapons-of-mass-destruction.

Suggested reading:

- Camilleri, Joseph A., Michael Hamel-Green, Marianne Hanson, Michális S. Michael, and N.A.J. Taylor. 2013. *Athens Dialogue on a Middle East Zone Free of Nuclear and Other Weapons of Mass Destruction as Well as Their Means of Delivery (WMDFZ)*. Athens, Greece: European Public Law Organization.
- Hamel-Green, Michael. 2015. 'Nuclear Threats and the Path to Eliminating Nuclear Weapons'. Personal website forum. *Joseph A. Camilleri*. March 8.
<http://www.josephcamilleri.org/forum/nuclear-threats-and-path-eliminating-nuclear-weapons>.
- ICAN. 2014. 'Humanitarian Pledge'. <http://www.icanw.org/pledge/>.
- Krieger, David. 2015. 'The Path to a World Free of Nuclear Weapons'. Organisational website. *Nuclear Age Peace Foundation Newsletter*. November.
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- Wald, George. 1964. 'The Origins of Life'. *Proceedings of the National Academy of Sciences of the United States of America* 52 (2): 595.