# 1NC v Westwood

### T --- A

#### Interpretation: Affirmatives may not specify a democracy

#### “A Democracy” is generic

#### A] It doesn’t pass the contradiction test

Nebel 1[Jake Nebel- Jake Nebel is an Assistant Professor of Philosophy at the University of Southern California. Jake works mainly in moral philosophy but has also published work in the philosophy of language in The Philosophical Review. He holds a PhD in Philosophy from New York University, an AB in Philosophy from Princeton University, and a BPhil in Philosophy from Oxford University, where he was a Marshall Scholar. As a coach, Jake’s students have won the Tournament of Champions, the NDCA National Championship, the Dukes & Bailey Cup, the Glenbrooks, the Harvard Round Robin, the New York City Invitational, the Barkley Forum at Emory, the TFA State Tournament, and other national, regional, and local championships. As a debater, he won the Glenbrooks (twice), Greenhill (twice), Harvard, Emory, Bronx, the Bronx Round Robin, the MBA Round Robin, the VBT Round Robin, and the Florida State Tournament, was in finals of NSDA Nationals, and was top speaker at the Tournament of Champions, Greenhill, Harvard, Bronx (twice), the Bronx Round Robin (twice), Yale (twice), the Vassar Round Robin, the Crestian Classic, and the Florida State Tournament. He attended VBI three times as a student and has worked at 35 sessions. “Indefinite Singular Generics in Debate” VBI Briefs. 2020] UT AI\* Note: These were from a brief. Text me or any of my kids and they’ll send it to you.

First, consider another existential use of the indefinite: “A cat is on the mat.” One way to tell that this use is existential is that the sentence “A cat is on the mat, and a cat is not on the mat” is consistent (or, at least, has a consistent reading), as in noncontradictory.2 It means the same thing as “Some cat is on the mat, and some cat is not on the mat,” which could be true if one cat is on the mat and one cat is not. So suppose that “a democracy” in the resolution is existential. Then the sentence “In a democracy, voting ought to be compulsory, and in a democracy, voting ought not be compulsory” should be consistent. But it’s not consistent—it’s contradictory. This shows that the resolution doesn’t mean “In some democracy, voting ought to be compulsory,” because “In some democracy, voting ought to be compulsory, and in some democracy, voting ought not be compulsory” is consistent but “In a democracy, voting ought to be compulsory, and in a democracy, voting ought not be compulsory” is not. So “a democracy” in the resolution cannot be existential after all.

#### B] it fails the upper entailment test- replacing “democracy” with a general noun changes the meaning.

Nebel 2[Jake Nebel- Jake Nebel is an Assistant Professor of Philosophy at the University of Southern California. Jake works mainly in moral philosophy but has also published work in the philosophy of language in The Philosophical Review. He holds a PhD in Philosophy from New York University, an AB in Philosophy from Princeton University, and a BPhil in Philosophy from Oxford University, where he was a Marshall Scholar. As a coach, Jake’s students have won the Tournament of Champions, the NDCA National Championship, the Dukes & Bailey Cup, the Glenbrooks, the Harvard Round Robin, the New York City Invitational, the Barkley Forum at Emory, the TFA State Tournament, and other national, regional, and local championships. As a debater, he won the Glenbrooks (twice), Greenhill (twice), Harvard, Emory, Bronx, the Bronx Round Robin, the MBA Round Robin, the VBT Round Robin, and the Florida State Tournament, was in finals of NSDA Nationals, and was top speaker at the Tournament of Champions, Greenhill, Harvard, Bronx (twice), the Bronx Round Robin (twice), Yale (twice), the Vassar Round Robin, the Crestian Classic, and the Florida State Tournament. He attended VBI three times as a student and has worked at 35 sessions. “Indefinite Singular Generics in Debate” VBI Briefs. 2020] UT AI\* Note: These were from a brief. Text me or any of my kids and they’ll send it to you.

Second, existential uses of the indefinite, such as “A cat is on the mat,” are upwardentailing. 3 This means that if you replace the noun with a more general one, such as “An animal is on the mat,” the sentence will still be true. So let’s do that with “a democracy.” Does the resolution entail “In a society, voting ought to be compulsory”? Intuitively not, because you could think that voting ought to be compulsory in democracies but not in other sorts of societies. This suggests that “a democracy” in the resolution is not existential.

#### C] The resolution has counterfactual implications so it’s generic.

Nebel 3[Jake Nebel- Jake Nebel is an Assistant Professor of Philosophy at the University of Southern California. Jake works mainly in moral philosophy but has also published work in the philosophy of language in The Philosophical Review. He holds a PhD in Philosophy from New York University, an AB in Philosophy from Princeton University, and a BPhil in Philosophy from Oxford University, where he was a Marshall Scholar. As a coach, Jake’s students have won the Tournament of Champions, the NDCA National Championship, the Dukes & Bailey Cup, the Glenbrooks, the Harvard Round Robin, the New York City Invitational, the Barkley Forum at Emory, the TFA State Tournament, and other national, regional, and local championships. As a debater, he won the Glenbrooks (twice), Greenhill (twice), Harvard, Emory, Bronx, the Bronx Round Robin, the MBA Round Robin, the VBT Round Robin, and the Florida State Tournament, was in finals of NSDA Nationals, and was top speaker at the Tournament of Champions, Greenhill, Harvard, Bronx (twice), the Bronx Round Robin (twice), Yale (twice), the Vassar Round Robin, the Crestian Classic, and the Florida State Tournament. He attended VBI three times as a student and has worked at 35 sessions. “Indefinite Singular Generics in Debate” VBI Briefs. 2020] UT AI\* Note: These were from a brief. Text me or any of my kids and they’ll send it to you.

Third, generic uses of the indefinite singular have counterfactual implications.4 For example, the generic “In a democracy, there ought to be regular elections” supports the counterfactual, “If North Korea were a democracy, it would be true that there ought to be regular elections in North Korea.” If “a democracy” in the first sentence were existential, this would be mysterious: the claim that some democracy ought to have regular elections doesn’t have any implications for what ought to be the case if some arbitrary non-democratic society were, contrary to fact, democratic. This feature derives from a deep feature of indefinite singular generics: they state non-accidential generalizations. “A whale is a mammal” suggests that if Fido were a whale, he’d be a mammal. It doesn’t just so happen to be true that a whale is a mammal; it’s a feature of what it is to be a whale. Now consider the resolution. “In a democracy, voting ought to be compulsory” supports the counterfactual, “If North Korea were a democracy, it would be true that voting ought to be compulsory in North Korea.” This cannot be explained on the hypothesis that “a democracy” in the resolution is existential.

#### Semantics outweigh and are an independent voter

#### A] Stasis – it’s the only stasis for predictability and pragmatics – sequencing negates

#### B] Inherency – It’s the only thing inherent to the topic – pragmatics are just reasons to change the topic not reasons why our interp is wrong

#### Violation: They only do the aff in india

#### Now Negate-

#### 1] Limits-There are over 150 democracies around the world. In each of these democracies there are several possible further subsets like specific groups or states that ought to vote. Leads to millions of possible affirmatives which makes negative preparation impossible – Limits outweighs because we need equal prep burdens to have an equal debate.

#### 2] Ground- I lose access to core negative ground like elections DA’s, voter Turnout DA’s, core topic pics and cps, etc. We also lose core generics since the aff will always have more specific evidence on the question and have more time to prep the them out.

#### DTD –

#### A] Deters future abuse

#### B] Drop the arg cant solve – the abuse has already happened

#### Competing interps –

#### A] Reasonability is Arbitrary and invites judge intervention – impossible to determine what is reasonable, which means debating over specific interps is best and we don’t know you’re bs meter or what you think is reasonable

#### B] Intervention – judges have to intervene and determine what is reasonable which is bad bc it forces judges to make decisions along preferred biases, which causes biased and possibly discriminatory decisions.

#### C] Collapses – we would just debate over the bright line which is functionally competing interps

#### No RVI’s

#### A] Baiting – that invites maximally abusive praxis bc people will just prep out the shell

#### B] Chilling – if we drop by trying to enforce a norm that we think is good then we wont do it again – this means were never able to create norms which ows on magnitude

#### C] Illogical – you shouldn’t win for meeting your burden if that was the case, affs could just win by saying they affirm the topic.

### 1NC --- K

#### Settler colonialism is a permeating structure that operates via the promotion of the nation-state – it thrives off of the elimination of indigenous people and their relationship to land – that appropriation turns them into ghosts

Tuck and Yang 12 (Eve Tuck and Wayne Yang; 2012; Decolonization: Indigeneity, Education & Society Vol. 1, No. 1, 2012, pp. 1-40; *“Decolonization is not a metaphor”*; accessed 12/7/21; <https://clas.osu.edu/sites/clas.osu.edu/files/Tuck%20and%20Yang%202012%20Decolonization%20is%20not%20a%20metaphor.pdf>; Eve Tuck is a Unangax̂ scholar in the field of Indigenous studies and educational research. Tuck is the associate professor of critical race and indigenous studies at the Ontario Institute for Studies in Education at the University of Toronto; K. Wayne Yang is Provost of John Muir College and Professor of Ethnic Studies at the University of California, San Diego; pages 5-7) HB \*brackets in original\* \*They use masculine pronouns to describe the settler not through direct association of the settler as a man but rather a dominating subject characterized as hypermasculine\*

Our intention in this descriptive exercise is not be exhaustive, or even inarguable; instead, we wish to emphasize that (a) decolonization will take a different shape in each of these contexts - though they can overlap4 - and that (b) neither external nor internal colonialism adequately describe the form of colonialism which operates in the United States or other nation-states in which the colonizer comes to stay. Settler colonialism operates through internal/external colonial modes simultaneously because there is no spatial separation between metropole and colony. For example, in the United States, many Indigenous peoples have been forcibly removed from their homelands onto reservations, indentured, and abducted into state custody, signaling the form of colonization as simultaneously internal (via boarding schools and other biopolitical modes of control) and external (via uranium mining on Indigenous land in the US Southwest and oil extraction on Indigenous land in Alaska) with a frontier (the US military still nicknames all enemy territory “Indian Country”). The horizons of the settler colonial nation-state are total and require a mode of total appropriation of Indigenous life and land, rather than the selective expropriation of profit-producing fragments. Settler colonialism is different from other forms of colonialism in that settlers come with the intention of making a new home on the land, a homemaking that insists on settler sovereignty over all things in their new domain. Thus, relying solely on postcolonial literatures or theories of coloniality that ignore settler colonialism will not help to envision the shape that decolonization must take in settler colonial contexts. Within settler colonialism, the most important concern is land/water/air/subterranean earth (land, for shorthand, in this article.) Land is what is most valuable, contested, required. This is both because the settlers make Indigenous land their new home and source of capital, and also because the disruption of Indigenous relationships to land represents a profound epistemic, ontological, cosmological violence. This violence is not temporally contained in the arrival of the settler but is reasserted each day of occupation. This is why Patrick Wolfe (1999) emphasizes that settler colonialism is a structure and not an event. In the process of settler colonialism, land is remade into property and human relationships to land are restricted to the relationship of the owner to his property. Epistemological, ontological, and cosmological relationships to land are interred, indeed made pre-modern and backward. Made savage. In order for the settlers to make a place their home, they must destroy and disappear the Indigenous peoples that live there. Indigenous peoples are those who have creation stories, not colonization stories, about how we/they came to be in a particular place - indeed how we/they came to be a place. Our/their relationships to land comprise our/their epistemologies, ontologies, and cosmologies. For the settlers, Indigenous peoples are in the way and, in the destruction of Indigenous peoples, Indigenous communities, and over time and through law and policy, Indigenous peoples’ claims to land under settler regimes, land is recast as property and as a resource. Indigenous peoples must be erased, must be made into ghosts (Tuck and Ree, forthcoming). At the same time, settler colonialism involves the subjugation and forced labor of chattel slaves5 , whose bodies and lives become the property, and who are kept landless. Slavery in settler colonial contexts is distinct from other forms of indenture whereby excess labor is extracted from persons. First, chattels are commodities of labor and therefore it is the slave’s person that is the excess. Second, unlike workers who may aspire to own land, the slave’s very presence on the land is already an excess that must be dis-located. Thus, the slave is a desirable commodity but the person underneath is imprisonable, punishable, and murderable. The violence of keeping/killing the chattel slave makes them deathlike monsters in the settler imagination; they are reconfigured/disfigured as the threat, the razor’s edge of safety and terror. The settler, if known by his actions and how he justifies them, sees himself as holding dominion over the earth and its flora and fauna, as the anthropocentric normal, and as more developed, more human, more deserving than other groups or species. The settler is making a new "home" and that home is rooted in a homesteading worldview where the wild land and wild people were made for his benefit. He can only make his identity as a settler by making the land produce, and produce excessively, because "civilization" is defined as production in excess of the "natural" world (i.e. in excess of the sustainable production already present in the Indigenous world). In order for excess production, he needs excess labor, which he cannot provide himself. The chattel slave serves as that excess labor, labor that can never be paid because payment would have to be in the form of property (land). The settler's wealth is land, or a fungible version of it, and so payment for labor is impossible.6 The settler positions himself as both superior and normal; the settler is natural, whereas the Indigenous inhabitant and the chattel slave are unnatural, even supernatural. Settlers are not immigrants. Immigrants are beholden to the Indigenous laws and epistemologies of the lands they migrate to. Settlers become the law, supplanting Indigenous laws and epistemologies. Therefore, settler nations are not immigrant nations (See also A.J. Barker, 2009). Not unique, the United States, as a settler colonial nation-state, also operates as an empire - utilizing external forms and internal forms of colonization simultaneous to the settler colonial project. This means, and this is perplexing to some, that dispossessed people are brought onto seized Indigenous land through other colonial projects. Other colonial projects include enslavement, as discussed, but also military recruitment, low-wage and high-wage labor recruitment (such as agricultural workers and overseas-trained engineers), and displacement/migration (such as the coerced immigration from nations torn by U.S. wars or devastated by U.S. economic policy). In this set of settler colonial relations, colonial subjects who are displaced by external colonialism, as well as racialized and minoritized by internal colonialism, still occupy and settle stolen Indigenous land. Settlers are diverse, not just of white European descent, and include people of color, even from other colonial contexts. This tightly wound set of conditions and racialized, globalized relations exponentially complicates what is meant by decolonization, and by solidarity, against settler colonial forces. Decolonization in exploitative colonial situations could involve the seizing of imperial wealth by the postcolonial subject. In settler colonial situations, seizing imperial wealth is inextricably tied to settlement and re-invasion. Likewise, the promise of integration and civil rights is predicated on securing a share of a settler-appropriated wealth (as well as expropriated ‘third-world’ wealth). Decolonization in a settler context is fraught because empire, settlement, and internal colony have no spatial separation. Each of these features of settler colonialism in the US context - empire, settlement, and internal colony - make it a site of contradictory decolonial desires7 . Decolonization as metaphor allows people to equivocate these contradictory decolonial desires because it turns decolonization into an empty signifier to be filled by any track towards liberation. In reality, the tracks walk all over land/people in settler contexts. Though the details are not fixed or agreed upon, in our view, decolonization in the settler colonial context must involve the repatriation of land simultaneous to the recognition of how land and relations to land have always already been differently understood and enacted; that is, all of the land, and not just symbolically. This is precisely why decolonization is necessarily unsettling, especially across lines of solidarity. “Decolonization never takes place unnoticed” (Fanon, 1963, p. 36). Settler colonialism and its decolonization implicates and unsettles everyone

#### Journalistic objectivity relies on the narrative of a “view from nowhere” which papers over individuals material connection – that enables the continuance of false narratives that upholds a history of erasure

Brake 21 (Justin Brake; 7/5/21; Briarpatch Magazine; *“Built on a foundation of white supremacy”*; accessed 3/4/22; <https://briarpatchmagazine.com/articles/view/built-on-a-foundation-of-white-supremacy>; Justin Brake is an independent journalist from Ktaqmkuk (Newfoundland) who presently lives and works in unceded Algonquin territory. A settler with Mi’kmaq ancestry, much of Justin’s work focuses on Indigenous rights and liberation. He is a writer and editor with the Breach and a regular contributor to the Independent) HB \*Brackets in original\*

The criminalization of Indigenous land defence – and of the journalism that reported on it – forced me and the land protectors through years of court hearings. In the end, the dam was built and Innu and Inuit living downstream now suffer the consequences of the violence inflicted upon their river and their ways of life. Some talked about the occupation’s silver linings: Innu, Inuit, and settler Labradorians “know now that they need to stick together to be heard and to be strong,” Innu land defender David Nuke told APTN in 2018. A 2019 decision from the Court of Appeal of Newfoundland and Labrador in my case recognized the special role journalists play when they cover Indigenous land defence. When granting an injunction, the judges wrote, courts must be careful not to infringe on Canadians’ constitutionally protected right to a free press. But in the years since 2016, as I’ve watched media coverage of Wet’suwet’en, Haudenosaunee, and Secwepemc land defence, I’m not sure a lack of press freedom is the main issue hindering good reporting on Indigenous resistance. As the reckoning with racism in Canadian newsrooms over the last year shows us, when the journalism industry is built on a foundation of white supremacy, publications and reporters become unwilling – maybe even unable – to acknowledge their biases and the ways their work upholds colonialism. Objectivity and settler colonialism “Watch your language.” That was the warning, written into an op-ed title, given by a daily newspaper columnist who took issue with my and other journalists’ use of the term “land protector” in our coverage of the Muskrat Falls resistance. “Reporters should avoid such language, laden as it is with inherent subjectivity,” the columnist went on. “[T]he last thing any journalist wants is to fuel those who are perpetually coiled and ready to yell ‘Media bias!’” The debate over the utility and legitimacy of objectivity in journalism is almost as old as the ideal itself. Objectivity “hinges on a more fundamental belief that there is a knowable world, a way of seeing that, once we set aside our own subjectivities, can be universally achieved or at least universally agreed upon,” journalist Lewis Raven Wallace writes in The View From Somewhere. Defenders of objectivity, like The Elements of Journalism authors Bill Kovach and Tom Rosenstiel, argue that “[o]bjectivity was not meant to suggest that journalists were without bias. To the contrary, precisely because journalists could never be objective, their methods had to be. In the recognition that everyone is biased, in other words, the news, like science, should flow from a process for reporting that is defensible, rigorous, and transparent.” But too often, objectivity is conflated with the views of those in positions of power. In Seeing Red: A History of Natives in Canadian Newspapers, Mark Cronlund Anderson and Carmen L. Robertson detail how, over the course of this country’s short history, Canadian newspapers have supported and advanced settler colonialism. Under the guise of “objective” reporting, journalists have consistently othered and stereotyped Indigenous Peoples, misrepresented them, and outright erased their histories and cultures. “The colonial stereotypes have endured in the press, even flourished,” the authors noted a decade ago. “That the prose may have become less ‘blatant’ however suggests that the audience has become more familiar with the genre conventions of colonial discourse. To put it another way: the nation has been built.” Robert Ballantyne, a Cree-Mohawk grad student at Carleton University and former CBC and Toronto Star journalist, is researching anti-colonial reporting methods. He says objectivity “makes it difficult for journalists to confront their own work, as if they are somehow capable of transcending their own backgrounds, biases, and communities.” Armed with what Ballantyne calls a perceived “superpower of fairness,” journalists’ indoctrination in objectivity “can create an almost impossible situation to have difficult conversations and create change if someone believes they are beyond reproach.” Tałtan journalist Candis Callison and her colleague Mary Lynn Young argue in their book Reckoning: Journalism’s Limits and Possibilities that “what journalists think happened is deeply related to who they are and where they’re coming from in broad and specific senses – and that there are multiple truths and perspectives that contribute to understanding what ‘really’ happened,” they write. Instead of pretending to be objective, they suggest journalists could be transparent about who they are and where they come from. “Recognizing individual and collective social and historical location needs to become part of the methodology for journalists in order to situate themselves, their knowledge, and expertise within a wider web of relations and entanglements.” The land and the economy Though non-Indigenous journalists benefit from colonization by living on stolen lands and reaping the benefits of Canada’s economy, we rarely – if ever – hear about land as anything but a resource to exploit. Within settler colonialism, Eve Tuck and K. Wayne Yang write, “Land is what is most valuable, contested, required. This is both because the settlers make Indigenous land their new home and source of capital, and also because the disruption of Indigenous relationships to land represents a profound epistemic, ontological, cosmological violence. This violence is not temporally contained in the arrival of the settler but is reasserted each day of occupation.” “There are dominant narratives” in journalism, explains IndigiNews managing editor Emilee Gilpin, a Michif journalist of Cree-Métis, Filipina, and settler descent. Gilpin previously worked as the National Observer’s lead on its First Nations Forward series and is committed to decolonizing journalism and the media. She points to Canada’s economy as an example of a dominant narrative and notes few journalists ever question its nature or legitimacy when reporting on Indigenous land defence. Everything journalists report is in relation to the economy, she says, “as if that’s just the assumed reality, as if that’s the world view that we’re all working from.” In a 2020 interview for TVO, Seeing Red author Carmen Robertson told Kanyen’kehá:ka journalist Shelby Lisk that while some journalists have improved their coverage of Indigenous land defence, there remains a “disconnect [between] what land means from a settler perspective — a possession, a way to improve economics in this country — and then the notion of land as something other than that, which is a relational or kinship tie, which many Canadians, for the most part, just can’t even fathom.” As a result of that disconnect, Robertson says, “we see those stereotypes bubble through, because the fact that they’re ‘stopping progress,’ they’re stopping the economy, that doesn’t play well [with Canadians].” Countering extractive journalism When Ukwehu:we journalist Karl Dockstader embedded with Haudenosaunee land defenders at Six Nations of the Grand River last summer, he didn’t fully appreciate the significance of what he was doing. “I’ve always seen myself as an outsider when it comes to journalism, and I never realized what an asset that was until I set up a tent at 1492 Land Back Lane,” he says, recalling the early days of the land reclamation in opposition to the construction of a new housing development on the outskirts of Caledonia, Ontario. Dockstader and Sean Vanderklis, who co-host One Dish, One Mic on Niagara radio station Newstalk 610 CKTB, took a different approach to their reporting. “We believed we had a responsibility to follow traditional protocol before inviting land defenders on to the radio,” Dockstader says. As Indigenous journalists, he and Vanderklis are accountable to the communities they cover, Dockstader explains, which involves developing relationships and earning trust. When the pair visited the site, they played “LaGolf” – a lacrosse-golf hybrid game – with land defenders. “I sat around the fire, I jammed out a couple horn rattle tunes and water drum, traditional songs, with one of the singers there. And we just got to know the camp,” Dockstader recalls. The pair’s newsgathering and reporting methodologies stand in stark contrast to how most journalists do their work. “The extractive approach to journalism treats facts like coal in a mine, using sources and places the way mining companies use land – as a resource to dig into, and then leave behind,” writes Wallace in The View From Somewhere. Extractive journalism “goes hand in hand with ‘objectivity’: the outside observer objectifies the people and places the stories are about, who become ‘sources’ rather than human beings.” Courtney Skye, who is Mohawk Turtle Clan from Six Nations and a researcher, policy analyst, and consultant, has supported 1492 Land Back Lane’s efforts. She praises Dockstader and Vanderklis’ approach to covering the land defence. “They did a really professional job of reminding people of their role and their work, but at the same time they are Indigenous reporters,” she says, pointing out that the Oneida Nation, of which Dockstader is a citizen, is one of the six that comprise Six Nations of the Grand River. “When you are in your home territory and you have familial connections and responsibilities to people, and you understand what those are – our laws, our ways of being should mean more and should supersede the expectations of colonial professionalism,” she says. For his work, Dockstader was charged with mischief and failure to comply with a court injunction that was intended to get land defenders off the construction site. The Canadian Association of Journalists and Canadian Journalists for Free Expression immediately condemned, “in the strongest possible terms, the Ontario Provincial Police’s decision to arrest and lay charges against an award-winning Indigenous journalist.” Three and a half months later, the Crown withdrew the charges, saying there was no reasonable prospect of conviction. In its 2021 World Press Freedom Index report, Reporters Without Borders noted the ongoing criminalization of journalists who cover Indigenous land defence in its critique of Canada’s track record on press freedom. Making power visible Journalists covering land defence stories often report on “divisions” within communities as a way to represent the diverse ideas and perspectives Indigenous people have on issues like resource development, land stewardship, and protection of collective rights. But without historical context and an eye to power, journalists often end up supporting colonial power structures, says Hayden King, who is Anishinaabe from Beausoleil First Nation and the executive director of the Yellowhead Institute, an Indigenous-led research centre at Ryerson University. “This whole notion of factionalism can be its own narrative trope,” he explains. “If reporters had the tools to critically assess who will benefit from the story [they’re] telling, it might offer some correctives to how that story is told.” Six Nations’ most recent chief and council – elected by less than 10 per cent of eligible voters – signed an accommodations agreement with the housing developer in 2019. However, the Haudenosaunee Confederacy Chiefs Council, which represents Six Nations’ traditional governance system, has never consented to the development and has publicly supported 1492 Land Back Lane. Skye says it’s crucial that journalists reporting on the land reclamation recognize the ways colonialism has disrupted Haudenosaunee decision-making processes. “Through the imposition of the Indian Act, certain people have been elevated into positions of power, [into] systems of hierarchies,” she explains. “It’s one of the ways that colonialism continues to hold Indigenous people back.” People often respond to colonial oppression by conforming to the system in order to access power, Skye says. “A lot of people see that as a way to our safety, a way to our success, and I try to always remember that and not to hold a person personally responsible for it. But you have to have that simultaneous contextualization of where people sit and the kind of access to powers that they have, which ultimately informs their opinions and their positions.” For Wallace, simply incorporating different perspectives into a story isn’t good enough. “We don’t need more ‘both sides’ reporting as a matter of course. We need a reckoning with the cultural forces of white supremacy and patriarchy themselves – these animating fantasies of superiority,” they write. “That requires a new framework for journalism – one that doesn’t shy away from analyzing and naming power and oppression.”

#### The alternative is a refusal of the affirmative – an engagement in the process of decentering settler subjectivities and injecting indigenous knowledge – in this project, refusal constitutes a multi-faceted method towards decolonization

Grande 18 (Sandy Grande; 2018; Routledge Publishing; *“Refusing the University,”* a chapter in the series of essays *“Toward What Justice?: Describing Diverse Dreams of Justice in Education”*; accessed 12/22/21; ask me for the pdf; Sandy Grande is associate professor and Chair of the Education Department at Connecticut College. Her research interfaces critical Indigenous theories with the concerns of education; 58-62) HB

Taking into account the power relations of both capitalism and white supremacy, Indigenous scholars posit refusal as a positive stance that is: less oriented around attaining an affirmative form of recognition… and more about critically revaluating, reconstructing and redeploying culture and tradition in ways that seek to prefigure… a radical alternative to the structural and psycho-affective facets of colonial domination. (Coulthard, 2007, p. 456) In this way, Indigenous refusal both negatively rejects the (false) promise of inclusion and other inducements of the settler state and positively asserts Indigenous sovereignty and peoplehood. In Mohawk Interruptus (2014), Audra Simpson theorizes refusal as distinct from resistance in that it does not take authority as a given. More specifically, at the heart of the text, she theorizes refusal at the “level of method and representation,” exposing the colonialist underpinnings of the “demand to know” as a settler logic. In response, she develops the notion of ethnographic refusal as a stance or space for Indigenous subjects to limit access to what is knowable and to being known, articulating how refusal works “in everyday encounters to enunciate repeatedly to ourselves and to outsiders that ‘this is who we are, this is who you are, these are my rights’” (Simpson, 2007, p. 73). Mignolo (2011) and Quijano (1991) similarly take up refusal in relation to knowledge formation, asserting Indigenous knowledge itself as a form of refusal; a space of epistemic disobedience that is “delinked” from Western, liberal, capitalist understandings of knowledge as production. Gómez-Barris (2012) theorizes the Mapuche hunger strikes as “an extreme bodily performance and political instantiation” of refusal, an act wherein their starving bodies upon the land literally enact what it means to live in a state of permanent war (p. 120). Understood as expressions of sovereignty, such acts of refusal threaten the settler state, carrying dire if not deadly consequences for Indigenous subjects. As noted by Ferguson (2015), “capitalist settler states prefer resistance” because it can be “negotiated or recognized,” but refusal “throws into doubt” the entire system and is therefore more dangerous. While within the university the consequences of academic refusal are much less dire, they still carry a risk. To refuse inclusion offends institutional authorities offering “the gift” of belonging, creating conditions of precarity for the refuser. For example, refusal to participate in the politics of respectability that characterizes institutional governance can result in social isolation, administrative retribution, and struggles with self-worth. Similarly, the refusal to comply with the normative structures of tenure and promotion (e.g., emphasizing quantity over quality; publishing in “mainstream” journals) can and does lead to increased marginalization, exploitation, and job loss.16 And, in a system where Indigenous scholars comprise less than 1% of the professorate, such consequences not only bear hardships for individuals but also whole communities. That said, academic “rewards” and inducements accessed through recognition-based politics can have even deeper consequences. As Jodi Byrd (2011) reminds us, the colonization of Indigenous lands, bodies, and minds will not be ended by “further inclusion or more participation” (Byrd, 2011, p. xxvi). The inspirational work of Black radical and Indigenous scholars compels thinking beyond the limits of academic recognition and about the generative spaces of refusal that not only reject settler logics but also foster possibilities of co-resistance. The prospect of coalition re-raises one of the initial animating questions of this chapter: What kinds of solidarities can be developed among peoples with a shared commitment to working beyond the imperatives of capital and the settler state? Clearly, despite the ubiquitous and often overly facile calls for solidarity, building effective coalitions is deeply challenging, even among insurgent scholars. Within this particular context, tensions between Indigenous sovereignty and decolonial projects and anti-racist, social justice projects, raise a series of suspicions: whether calls for Indigenous sovereignty somehow elide the a priori condition of blackness (the “unsovereign” subject),17 whether anti-racist struggles sufficiently account for Indigenous sovereignty as a land-based struggle elucidated outside regimes of property, and whether theorizations of settler colonialism sufficiently account for the forces and structures of white supremacy, racial slavery, and antiblackness. Rather than posit such tensions as terminally incommensurable, however, I want to suggest a parallel politics of dialectical co-resistance. When Black peoples can still be killed but not murdered; when Indians are still made to disappear; when (Indigenous) land and Black bodies are still destroyed and accumulated for settler profit; it is incumbent upon all those who claim a commitment to refusing the white supremacist, capitalist, settler state, to do the hard work of building “interconnected movements for decolonization” (Coulthard, 2014). The struggle is real. It is both material and psychological, both method and politics, and thus must necessarily straddle the both/and (as opposed to either/or) coordinates of revolutionary change. In terms of process, this means working simultaneously beyond resistance and through the enactment of refusal—as fugitive, abolitionist, and Indigenous, sovereign subjects. Within the context of the university, this means replacing calls for more inclusive and diverse, safe spaces within the university with the development of a network of sovereign, safe houses outside the university. Kelley reminds us of the long history of this struggle, recalling the Institute of the Black World at Atlanta University (1969), the Mississippi Freedom Schools, and the work of Black feminists Patricia Robinson, Donna Middleton, and Patricia Haden as inspirational models. As a contemporary model, he references Harney and Moten’s vision of the undercommons as a space of possibility: a fugitive space wherein the pursuit of knowledge is not perceived as a path toward upward mobility and material wealth but rather as a means toward eradicating oppression in all of its forms (Undercommoning Collective). The ultimate goal, according to Kelley (2016), is to create in the present a future that overthrows the logic of neoliberalism. Scholars within Native studies similarly build upon a long tradition of refusing the university, theorizing from and about sovereignty through land-based models of education. Whereas a fugitive flees and seeks to escape, the Indigenous stands ground or, as Deborah Bird points out, “to get in the way of settler colonization, all the native has to do is stay at home” (as cited in Wolfe, 2006, p. 388). The ultimate goal of Indigenous refusal is Indigenous resurgence; a struggle that includes but is not limited to the return of Indigenous land. Again, while the aims may be different (and in some sense competing), efforts toward the development of parallel projects of co-resistance are possible through vigilant and sustained engagement. The “common ground” here is not necessarily literal but rather conceptual, a corpus of shared ethics and analytics: anti-capitalist, feminist, anti-colonial. Rather than allies, we are accomplices—plotting the death but not murder of the settler university. Toward this end, I offer some additional strategies for refusing the university: First and foremost, we need to commit to collectivity—to staging a refusal of the individualist promise project of the settler state and its attendant institutions. This requires that we engage in a radical and ongoing reflexivity about who we are and how we situate ourselves in the world. This includes but is not limited to a refusal of the cycle of individualized inducements—particularly, the awards, appointments, and grants that require complicity or allegiance to institutions that continue to oppress and dispossess. It is also a call to refuse the perceived imperative to self-promote, to brand one’s work and body. This includes all the personal webpages, incessant Facebook updates, and Twitter feeds featuring our latest accomplishments, publications, grants, rewards, etc. etc. Just. Make. It. Stop. The journey is not about self—which means it is not about promotion and tenure—it is about the disruption and dismantling of those structures and processes that create hierarchies of individual worth and labor. Second, we must commit to reciprocity—the kind that is primarily about being answerable to those communities we claim as our own and those we claim to serve. It is about being answerable to each other and our work. One of the many things lost to the pressures of the publish-or-perish, quantity-over-quality neoliberal regime is the loss of good critique. We have come to confuse support with sycophantic praise and critical evaluation with personal injury. Through the ethic of reciprocity, we need to remind ourselves that accountability to the collective requires a commitment to engage, extend, trouble, speak back to, and intensify our words and deeds. Third, we need to commit to mutuality, which implies reciprocity but is ultimately more encompassing. It is about the development of social relations not contingent upon the imperatives of capital—that refuses exploitation at the same time as it radically asserts connection, particularly to land. Inherent to a land-based ethic is a commitment to slowness and to the arc of inter-generational resurgence and transformation. One of the many ways that the academy recapitulates colonial logics is through the overvaluing of fast, new, young, and individualist voices and the undervaluing of slow, elder, and collective ones. And in such a system, relations and paradigms of connection, mutuality, and collectivity are inevitably undermined. For Indigenous peoples, such begin and end with land, centering questions of what it means to be a good relative. Toward this end, I have been thinking a lot lately about the formation of a new scholarly collective, one that writes and researches under a nom de guerre—like the Black feminist scholars and activists who wrote under and through the Combahee River Collective or the more recent collective of scholars and activists publishing as “the uncertain commons.”18 If furthering the aims of insurgence and resurgence (and not individual recognition) is what we hold paramount, then perhaps one of the most radical refusals we can authorize is to work together as one; to enact a kind of Zapatismo scholarship and a balaclava politics where the work of the collectivity is intentionally structured to obscure and transcend the single voice, body, and life. Together we could write in refusal of liberal, essentialist forms of identity politics, of individualist inducements, of capitalist imperatives, and other productivist logics of accumulation. This is what love as refusal looks like. It is the un-demand, the un-desire to be either of or in the university. It is the radical assertion to be on: land. Decolonial love is land.

#### The role of the ballot should be to center indigenous scholarship – any project of research should begin and end with placing the indigenous demands and resistance at it’s forefront. Our role as settlers specifically obligates us to center our politics in the context of ensuring accountability

Carlson 16 (Elizabeth Carlson; 10/21/16; Settler Colonial Studies; *“Anti-colonial methodologies and practices for settler colonial studies”*; accessed 12/28/21; ask me for the pdf; Elizabeth Carlson is an Assistant Professor at the School of Social Work at Laurentian University; pages 9-10) HB

Relational and epistemic accountability to Indigenous peoples Arlo Kempf says that ‘where anticolonialism is a tool used to invoke resistance for the colonized, it is a tool used to invoke accountability for the colonizer’. 42 Relational accountability should be a cornerstone of settler colonial studies. I believe settler colonial studies and scholars should ethically and overtly place themselves in relationship to the centuries of Indigenous oral, and later academic scholarship that conceptualizes and resists settler colonialism without necessarily using the term: SCT may be revelatory to many settler scholars, but Indigenous people have been speaking for a long time about colonial continuities based on their lived experiences. Some SCTs have sought to connect with these discussions and to foreground Indigenous resistance, survival and agency. Others, however, seem to use SCT as a pathway to explain the colonial encounter without engaging with Indigenous people and experiences – either on the grounds that this structural analysis already conceptually explains Indigenous experience, or because Indigenous resistance is rendered invisible.43 Ethical settler colonial theory (SCT) would recognize the foundational role Indigenous scholarship has in critiques of settler colonialism. It would acknowledge the limitations of settler scholars in articulating settler colonialism without dialogue with Indigenous peoples, and take as its norm making this dialogue evident. In my view, it is critical that we not view settler colonial studies as a new or unique field being established, which would enact a discovery narrative and contribute to Indigenous erasure, but rather take a longer and broader view. Indigenous oral and academic scholars are indeed the originators of this work. This space is not empty. Of course, powerful forces of socialization and discipline impact scholars in the academy. There is much pressure to claim unique space, to establish a name for ourselves, and to make academic discoveries. I am suggesting that settler colonial studies and anti-colonial scholars resist these hegemonic pressures and maintain a higher anti-colonial ethic. As has been argued, ‘the theory itself places ethical demands on us as settlers, including the demand that we actively refuse its potential to re-empower our own academic voices and to marginalize Indigenous resistance’. 44 As settler scholars, we can reposition our work relationally and contextually with humility and accountability. We can centre Indigenous resistance, knowledges, and scholarship in our work, and contextualize our work in Indigenous sovereignty. We can view oral Indigenous scholarship as legitimate scholarly sources. We can acknowledge explicitly and often the Indigenous traditions of resistance and scholarship that have taught us and provided the foundations for our work. If our work has no foundation of Indigenous scholarship and mentorship, I believe our contributions to settler colonial studies are even more deeply problematic.

# Case

### Util

#### Fiat is illusory --- voting aff doesn’t do anyhting --- this debate should be a question of what modes of research and pedagogy we should invest in

#### The construction of the end of the world relies on an all lives matter discourse which distorts the perception of events – that ignores the material reality that the global south experiences extinction level events every day which injects the notion of white heroism

Mitchell and Chaudry 20 (Audra Mitchell and Aadita Chaudry; 2020; International Relations, Vol. 34, Issue 3; *“Worlding beyond ‘the’ ‘end’ of ‘the world’: white apocalyptic visions and BIPOC futurisms”*; accessed 1/27/22; <https://journals.sagepub.com/doi/pdf/10.1177/0047117820948936>; Audra Mitchell is a settler scholar living on Haudenosaunee, Anishinaabe, and Attawandaron lands in what is currently called Canada. She holds the Canada Research Chair in Global Political Ecology at the Balsillie School of International Affairs. Audra has published widely on the subjects of extinction, large-scale ecological harms, more-than-human ethics, ecological thought, and violence studies. Audra’s current work focuses on understanding the role of colonization, genocide, land-based gendered and sexual violence and extractivism in driving global patterns of extinction; Aadita Chaudhury is a settler PhD candidate in science and technology studies at York University, in Tkaronto (Toronto) in what is now Canada. She is currently completing her dissertation project on exploring global theory and praxis around managing ecosystem fires and narratives surrounding combustion through the lens of capitalism and colonialism.; pages 311-315) HB

White subjectivities Discourses that predict the imminent ‘end of the world’ are not as universal as they often claim to be. The futures they fear for, seek to protect and work to construct are rooted in a particular set of global social structures and subjectivities: whiteness. Whiteness is not reducible to skin pigmentation, genetics or genealogy. It is a set of cultural, political, economic, normative, and subjective structures derived from Eurocentric societies and propagated through global formations such as colonization and capitalism. These multi-scalar structures work by segregating bodies through the inscription of racial difference, privileging those they recognize or construct as ‘white’4 and unequally distributing harms to those that they do not.5 Whiteness is also a form of property6 that accrues benefits – including material, physical, and other forms of security – and pervasive forms of power, across space, time, and social structures. Due in part to its trans-formation through long-duration, global patterns of violence and conquest, whiteness takes unique forms wherever and whenever it coalesces, so it should not be treated as universal – despite its own internal claims to this status. Most of the leading contributors to mainstream ‘end of the world’ discourses discussed in this article are rooted in Euro-American cultural contexts, and in particular in settler colonial and/or imperial states such as the United States, Canada, Australia, and the United Kingdom. As such, the forms of whiteness they embody are linked to particular histories of settlement, frontier cultures, resource-based imperialisms, genocides of Indigenous communities, histories of slavery, and modes of anti-Blackness. Whiteness is remarkable in its ability to render itself invisible to those who possess and benefit from it. Many, if not most, of the (often liberal humanitarian) authors of ‘end of the world’ discourses seem unaware of its integral influence on their thinking, and would almost certainly be horrified at the thought of their work entrenching racialized injustices. We are not suggesting that these authors espouse explicit, intentional and/or extreme racist ideals, on which much public discussion by white people of racism tends to focus.7 Nor do we wish to homogenize or present as equivalent all of the viewpoints discussed in this paper, which display a range of expressions of whiteness and levels of awareness thereof.8 On the contrary, we work to center broad, everyday, structural ways in which underlying logics of whiteness and white supremacy frame and permeate mainstream paradigms and discourses, including those identified as liberal, humanitarian, or progressive. Even amongst white people who consciously and explicitly disavow racism, unconscious, habitual, normalized, structurally-embedded assumptions circulate, and are reproduced in ways that perpetuate race9 as a global power structure. This includes one of the authors of this paper (Mitchell), who, as a white settler,10 continues to benefit from and participate – and thus ‘invest’11 – in structures of whiteness, and therefore has a continual responsibility to confront them (although total divestment is not possible).12 The ‘habits’ of racism13 are reflected strongly in the way that contemporary ‘end of the world’ narratives frame their protagonists: those attributed with meaningful agency and ethical status in the face of global threats; those whose survival or flourishing is prioritized or treated as a bottom line when tradeoffs are imagined and planned; and, crucially, those deemed capable of and entitled to ‘save the world’ and determine its future. This is expressed in several key features of the genre, including its domination by white thinkers; the forms of subjectivity and agency it embraces; and the ways it contrasts its subjects against BIPOC communities. First, contributors to fast-growing fields like the study of ‘existential risk’ or ‘global catastrophic risk’ are overwhelmingly white. As we will see, almost all of the authors identified by the literature review on which this paper is based, and certainly the most influential thinkers in the field, are white. For example, the seminal collection Global Existential Risk, 14 which claims to offer a comprehensive snapshot of this field, is edited by two white male Europeans (Nick Bostrom and Milan Circovic) and authored by an almost entirely white (and all-male) group of scholars. Likewise, the most senior positions within influential think tanks promoting the study of ‘existential risk’, such as the Future of Humanity Institute, the Cambridge Center for the Study of Existential Risk and Humanprogress.org, are dominated by white men, with few exceptions.15 Another expression of this tendency toward epistemic whiteness is found in the habit, prominent amongst white academics, of citing all or mostly-white scholars, which entrenches a politics of citation16 that privileges whiteness and acknowledges only some intersectionalities as relevant.17 As mentioned above, Mitchell’s (2017)18 work offers an example of this tendency: while it engages critical, feminist, and queer postapocalyptic visions written by white authors, it does not center BIPOC perspectives or knowledge systems. These examples do not simply raise issues of numerical representation, nor can whiteness necessarily be dismantled simply by altering these ratios. More importantly, all-white or majority white spaces create epistemes in which most contributors share cultural backgrounds, assumptions, and biases that are rarely challenged by alternative worldviews, knowledge systems or registers of experience. In such epistemes the perceived boundaries of ‘human thought’ are often elided with those of Euro-centric knowledge. For example, influential American settler journalist David Wallace-Wells19 contends that there exists no framework for grasping climate change besides ‘mythology and theology’. In so doing, he ignores centuries of ongoing, systematic observation and explicit articulations of concern by BIPOC knowledge keepers about climactic change. The bracketing of BIPOC knowledges not only severely limits the rigor of discourses on global crises, but also, as bi-racial organizer and thinker adrienne maree brown20 argues, it produces distorted outcomes. For instance, it smuggles normative judgments that ‘turn Brown bombers into terrorists and white bombers into mentally ill victims’ into apparently ‘objective’ claims. Similarly, the influential work of Black American criminologist Ruth Wilson Gilmore21 demonstrates how white imaginaries of the threat posed by BIPOC bodies has produced the massive global penal complex and the radically unequal distribution of life chances. In short, imaginaries create worlds, so it matters greatly whose are privileged, and whose are excluded. Further, emerging narratives of the ‘end of the world’ explicitly center figures of whiteness as their protagonists – as the survivors of apocalypse, the subjects capable of saving the world from it, and as those most threatened. In these discourses, ‘survivors’ are framed as saviors able to protect and/or regenerate and even improve Western forms of governance and social order by leveraging resilience, scientific prowess, and technological genius. For example, the cover of American settler scientists Tony Barnosky and Elizabeth Hadley’s book Tipping Points for Planet Earth features a stylized male ‘human’ whom they identify as former California governor Jerry Brown (a powerful white settler politician) holding the earth back from rolling over a cliff.22 Similarly, presenting a thought experiment about the planet’s future, Homer-Dixon23 asks his readers to imagine ‘an average male – call him John’ (in fact, the most popular male name globally at the time of writing was Mohammed). This is followed by images of a Caucasian male dressed in safari or hiking gear – both emblematic of symbols colonial conquest24 – tasked with choosing from two forks on a path, as imagined by white American poet Robert Frost. This image of rugged masculine whiteness, embodied in physical strength, colonial prowess, and the ability to dominate difficult landscapes is mirrored in his framing of his former co-workers on oil rigs in the Canadian prairies25 as models of resilience. Similarly, American settler science writer Annalee Newitz26 proposes the Canadian province of Saskatchewan as a ‘model for human survival’, based on her perceptions of the resilience, persistence and collaborative frontier attitudes of its people. Saskatchewan is a notoriously racist part of Canada, in which violence against Indigenous people continues to be integral to its white-dominated culture27 – yet this polity and its culture are held up by Newitz as a model of ‘human’ resilience. By imagining subjects in whom whiteness is elided with resilience and survival, these discourses not only normalize and obscure the modes of violence and oppression through which perceived ‘resilience’ – or, in blunt terms, preferential access to survival – is achieved. They also work to displace the threat of total destruction ‘onto others who are seen as lacking the resourcefulness of the survivor’.28 In addition, many ‘end of the world’ narratives interpellate subjects of white privilege by assuming that readers are not (currently) affected by the harms distributed unequally by global structures of environmental racism. For instance, Barnosky and Hadley29 (italics ours) state, ‘if you are anything like we are, you probably think of pollution as somebody else’s problem. . . you probably don’t live near a tannery, mine dump or any other source of pollution’. For many people of color, living near a source of pollution may be nearly inescapable as a result of structural-material discrimination, including zoning practices and the accessibility of housing.30 Viewing ecological harms as ‘someone else’s problem’ is a privilege afforded to those who have never been forced contemplate the destruction of their communities or worlds.31 At the same time, these authors – along with many others working in the genre – invoke narratives akin to ‘all lives matter’ or ‘colour-blindness’32 that erase unequal distributions of harm and threat. For instance, during their international travels for scientific research and leisure, Barnosky and Hadley (italics ours) describe a dawning awareness that ‘the problems we were writing about. . . were everybody’s problems. . .no one was escaping the impacts. . . including us’. They go on to frame as equivalent flooding in Pakistan that displaced 20million people and killed 2000 with the inconveniences caused by the temporary flooding of the New York subway system in 2012. In addition, they cite evidence of endocrine disruption in American girls caused by pollution, stating that the youngest of the cohort are African American and Latina but that ‘the most dramatic increase is in Caucasian girls’33 (italics ours). In this framing, even though BIPOC children remain most adversely affected, white children are pushed to the foreground and framed as more urgently threatened in relative terms. These comparisons background the disproportionate burden of ecological harm born by BIPOC, and reflect a stark calculus of the relative value of white and BIPOC lives. The ‘all lives matter’ logic employed here constructs ‘a universal human frailty’34 in which responsibility for ecological threats is attributed to ‘humans’ in general, and the assignment of specific culpability is avoided. While Newitz avers that ‘assigning blame [for ecological harm] is less important than figuring out how to. . . survive’,35 we argue that accurately attributing responsibility is crucial to opening up futures in which it is possible to dismantle the structural oppressions that unequally distribute harms and chances for collective survival. Preoccupation with the subjects of whiteness in ‘end of the world’ discourses is also reflected in the framing of BIPOC communities as threats to the survival of ‘humanity’. These fears are perhaps most simply and starkly expressed in anxieties over population decline within predominantly white countries, paired with palpable fear of rising birth rates amongst BIPOC communities. Chillingly, such fears are often connected to the mere biological survival of BIPOC, and the reproductive capacities of Black and Brown bodies – especially those coded as ‘female’, and therefore ‘fertile’ within colonial gender binaries.36 For instance, in his treatise on ‘over’-population, American settler science writer Alan Weisman addresses the ‘problem’ raised by the likely significant increase of survival rates (especially amongst children) as a result of widely-available cures for illnesses such as malaria or HIV. Since, he avers, it would be ‘unconscionable’ to withhold these vaccines, Weisman suggests that malaria and HIV research funding should also promote family planning – that is, control of BIPOC fertility – since ‘there’s no vaccine against extinction’.37 Here, BIPOC survival and reproductivity is literally – even if not strictly intentionally – framed as an incurable disease that could culminate in ‘extinction’. Although some of these discussions examine total growth in human populations globally,38 much of this research focuses on relative population sizes, usually of BIPOCmajority places to those inscribed as white. For instance, British doctor John Guillebaud predicts a ‘birth dearth’ in Europe while likening ‘unremitting population growth’ in other parts of the world to ‘the doctrine of the cancer cell’.39 Although these regions are described in various ways throughout the genre – for instance, as ‘poor’ or ‘developing’, the areas slated for growth are almost always BIPOC-majority. For example, Hungarian demographer Paul Demeny (italics ours) argues that Europe’s population is steadily shrinking ‘while nearby populations explode’.40 Drawing on Demeny’s work, HomerDixon warns of a future 3:1 demographic ratio between North Africa/West Asia and Europe, along with 70% growth in Bangladesh, 140% growth in Kenya, and a doubling of the populations of Iraq, Saudi Arabia, Pakistan, and Nigeria. Directly after sharing these statistics, he appends a list of international news reports referring to, for example, clashes between Indigenous communities in Kenya, riots in Shanghai, and murder rates in Mexico.41 In so doing, he directly juxtaposes BIPOC population growth with stereotypes of violence and ‘incivility’. BIPOC are often represented in these narratives as embodiments of ecological collapse and threat, embedding the assumption that ‘black people don’t care about the environment’,42 and that the global ‘poor’ will always prioritize short-term economic needs above ecological concerns. This belief is reflected in travelogue-style descriptions of ecological devastation, including Barnosky and Hadley’s musings, while on holiday in Utah, that the ancient Puebloan society collapsed because they had run out of water – a situation which they project onto future Sudan, Somalia, and Gaza. In addition, they diagnose the fall of what they call the ‘extinct’ Mayan community to overpopulation and over-exploitation of resources – despite the survivance43 of over 6million Mayan people in their Ancestral lands and other places at the time of writing.44 These descriptions chime with the common refrain on the part of settler states that BIPOC are unable to care properly for their land, even in the absence of conflicting data. This constructed ignorance allows those states to frame BIPOC territories as ‘wasteland’ awaiting annexation or improvement, or as dumping grounds for the externalities of capitalism.45 What’s more, the use of BIPOC communities as cautionary tales for planetary destruction strongly suggests that the redistribution of global power, land ownership, and other forms of agency toward BIPOC structures would result in ecological disaster.

### Framing issue

#### Top level --- if Pakistan is a threat too India then they are being objective so it isn’t offense from the plan

#### Their ray ev proves pandemics isnt about the press ists about the government doesn’t matter

#### Their ray ev

But Health Minister Harsh Vardhan had on March 7 said India was in the “endgame” of the pandemic. The government’s narrative was that India need not worry

### Pandemics

#### Diseases don’t cause extinction

Owen Cotton-Barratt 17, et al, PhD in Pure Mathematics, Oxford, Lecturer in Mathematics at Oxford, Research Associate at the Future of Humanity Institute, 2/3/2017, Existential Risk: Diplomacy and Governance, https://www.fhi.ox.ac.uk/wp-content/uploads/Existential-Risks-2017-01-23.pdf

For most of human history, natural pandemics have posed the greatest risk of mass global fatalities.37 However, there are some reasons to believe that natural pandemics are **very unlikely to cause human extinction**. Analysis of the International Union for Conservation of Nature (IUCN) red list database has shown that of the 833 recorded plant and animal species extinctions known to have occurred since 1500, **less than 4%** (31 species) were ascribed to infectious disease.38 None of the mammals and amphibians on this list were globally dispersed, and other factors aside from infectious disease also contributed to their extinction. It therefore seems that our own species, which is **very numerous**, **globally dispersed**, and capable of a **rational response to problems**, is very unlikely to be killed off by a natural pandemic.

One underlying explanation for this is that highly lethal pathogens can kill their hosts before they have a chance to spread, so there is a **selective pressure for pathogens not to be highly lethal**. Therefore, pathogens are likely to co-evolve with their hosts rather than kill all possible hosts.39

#### Absolutely no chance of extinction from disease

Adalja 16 [Amesh Adalja, infectious disease physician at the University of Pittsburgh] “Why Hasn't Disease Wiped out the Human Race?” June 17, 2016 (http://www.theatlantic.com/health/archive/2016/06/infectious-diseases-extinction/487514/) - MZhu

But when people ask me if I’m worried about infectious diseases, they’re often not asking about the threat to human lives; they’re asking about the threat to human life. With each outbreak of a headline-grabbing emerging infectious disease comes a fear of extinction itself. The fear envisions a large proportion of humans succumbing to infection, leaving no survivors or so few that the species can’t be sustained.

I’m not afraid of this apocalyptic scenario, but I do understand the impulse. Worry about the end is a quintessentially human trait. Thankfully, so is our resilience.

For most of mankind’s history, infectious diseases were the existential threat to humanity—and for good reason. They were quite successful at killing people: The 6th century’s Plague of Justinian knocked out an estimated 17 percent of the world’s population; the 14th century Black Death decimated a third of Europe; the 1918 influenza pandemic killed 5 percent of the world; malaria is estimated to have killed half of all humans who have ever lived.

Any yet, of course, humanity continued to flourish. Our species’ recent explosion in lifespan is almost exclusively the result of the control of infectious diseases through sanitation, vaccination, and antimicrobial therapies. Only in the modern era, in which many infectious diseases have been tamed in the industrial world, do people have the luxury of death from cancer, heart disease, or stroke in the 8th decade of life. Childhoods are free from watching siblings and friends die from outbreaks of typhoid, scarlet fever, smallpox, measles, and the like.

So what would it take for a disease to wipe out humanity now?

In Michael Crichton’s The Andromeda Strain, the canonical book in the disease-outbreak genre, an alien microbe threatens the human race with extinction, and humanity’s best minds are marshaled to combat the enemy organism. Fortunately, outside of fiction, there’s no reason to expect alien pathogens to wage war on the human race any time soon, and my analysis suggests that any real-life domestic microbe reaching an extinction level of threat probably is just as unlikely.

Any apocalyptic pathogen would need to possess a very special combination of two attributes. First, it would have to be so unfamiliar that no existing therapy or vaccine could be applied to it. Second, it would need to have a high and surreptitious transmissibility before symptoms occur. The first is essential because any microbe from a known class of pathogens would, by definition, have family members that could serve as models for containment and countermeasures. The second would allow the hypothetical disease to spread without being detected by even the most astute clinicians.

The three infectious diseases most likely to be considered extinction-level threats in the world today—influenza, HIV, and Ebola—don’t meet these two requirements. Influenza, for instance, despite its well-established ability to kill on a large scale, its contagiousness, and its unrivaled ability to shift and drift away from our vaccines, is still what I would call a “known unknown.” While there are many mysteries about how new flu strains emerge, from at least the time of Hippocrates, humans have been attuned to its risk. And in the modern era, a full-fledged industry of influenza preparedness exists, with effective vaccine strategies and antiviral therapies.

HIV, which has killed 39 million people over several decades, is similarly limited due to several factors. Most importantly, HIV’s dependency on blood and body fluid for transmission (similar to Ebola) requires intimate human-to-human contact, which limits contagion. Highly potent antiviral therapy allows most people to live normally with the disease, and a substantial group of the population has genetic mutations that render them impervious to infection in the first place. Lastly, simple prevention strategies such as needle exchange for injection drug users and barrier contraceptives—when available—can curtail transmission risk.

Ebola, for many of the same reasons as HIV as well as several others, also falls short of the mark. This is especially due to the fact that it spreads almost exclusively through people with easily recognizable symptoms, plus the taming of its once unfathomable 90 percent mortality rate by simple supportive care.

Beyond those three, every other known disease falls short of what seems required to wipe out humans—which is, of course, why we’re still here. And it’s not that diseases are ineffective. On the contrary, diseases’ failure to knock us out is a testament to just how resilient humans are. Part of our evolutionary heritage is our immune system, one of the most complex on the planet, even without the benefit of vaccines or the helping hand of antimicrobial drugs. This system, when viewed at a species level, can adapt to almost any enemy imaginable. Coupled to genetic variations amongst humans—which open up the possibility for a range of advantages, from imperviousness to infection to a tendency for mild symptoms—this adaptability ensures that almost any infectious disease onslaught will leave a large proportion of the population alive to rebuild, in contrast to the fictional Hollywood versions.

While the immune system’s role can never be understated, an even more powerful protector is the faculty of consciousness. Humans are not the most prolific, quickly evolving, or strongest organisms on the planet, but as Aristotle identified, humans are the rational animals—and it is this fundamental distinguishing characteristic that allows humans to form abstractions, think in principles, and plan long-range. These capacities, in turn, allow humans to modify, alter, and improve themselves and their environments. Consciousness equips us, at an individual and a species level, to make nature safe for the species through such technological marvels as antibiotics, antivirals, vaccines, and sanitation. When humans began to focus their minds on the problems posed by infectious disease, human life ceased being nasty, brutish, and short. In many ways, human consciousness became infectious diseases’ worthiest adversary.

#### Many other characteristics of biodefense must be bolstered to solve the impact

Dhillon et al. 17 (Ranu S. Dhillon, MD, is an instructor at Harvard Medical School and a physician at Brigham and Women’s Hospital in Boston. [Devabhaktuni Srikrishna](https://hbr.org/search?term=devabhaktuni+srikrishna) is the founder of [Patient Knowhow](http://www.patientknowhow.com), which curates patient educational content on YouTube. [David Beier](https://hbr.org/search?term=david+beier) is a managing director of Bay City Capital. He previously served in several leadership roles at the intersection of government, policy, and technology.)(“The World Is Completely Unprepared for a Global Pandemic”, March 15, 2017, Harvard Business Review, https://hbr.org/2017/03/the-world-is-completely-unprepared-for-a-global-pandemic)//ASMITH

In 2003 a doctor with SARS [unknowingly infected several guests](https://www.ncbi.nlm.nih.gov/books/NBK92462/pdf/Bookshelf_NBK92462.pdf) while staying at a Hong Kong hotel, and overnight the virus reached across the globe. China is currently battling a bird flu that [kills nearly half of the people infected](https://www.statnews.com/2017/02/28/bird-flu-surge/). If Ebola, which transmits through fluids, were spread by air, or if Zika, which [has reached over 50 countries,](https://www.cdc.gov/zika/geo/active-countries.html) were as deadly as Ebola, we would be facing an unprecedented catastrophe. An uncontrolled outbreak or bioterror attack could result in a [contagion that kills over 30 million people](https://www.securityconference.de/en/media-library/munich-security-conference-2017/video/panel-discussion-health-security-small-bugs-big-bombs/).

We fear it is only a matter of time before we face a deadlier and more contagious pathogen, yet the threat of a deadly pandemic remains dangerously overlooked. Pandemics now occur with greater frequency, due to factors such as climate change, urbanization, and international travel. Other factors, such as a weak World Health Organization and potentially massive cuts to funding for U.S. scientific research and [foreign aid, including funding for the United Nations,](http://foreignpolicy.com/2017/03/13/white-house-seeks-to-cut-billions-in-funding-for-united-nations/?utm_content=buffer6a145&utm_medium=social&utm_source=facebook.com&utm_campaign=buffer) stand to deepen our vulnerability. We also face the specter of novel and mutated pathogens that could spread and kill faster than diseases we have seen before. With the advent of genome-editing technologies, bioterrorists could artificially engineer new plagues, a threat that Ashton Carter, the former U.S. secretary of defense, thinks could [rival nuclear weapons in deadliness](https://www.wired.com/2017/02/former-secretary-defense-outlines-future-warfare/).

The two of us have advised the president of Guinea on stopping Ebola. In addition, we have [worked on ways to contain the spread of Zika](http://www.bmj.com/content/356/bmj.j379) and have informally advised U.S. and international organizations on the matter. Our experiences tell us that the world is unprepared for these threats.

We urgently need to change this trajectory. We can start by learning four lessons from the gaps exposed by the Ebola and Zika pandemics.

Faster Vaccine Development

The most effective way to stop pandemics is with vaccines. However, with Ebola there was no vaccine, and only now, years later, [has one proven effective](https://www.nytimes.com/2016/12/22/health/ebola-vaccine.html). This has been the case with Zika, too. Though there has been [rapid progress](https://www.nytimes.com/2016/11/20/business/testing-the-limits-of-biotech-in-the-race-for-a-zika-vaccine.html) in developing and getting a vaccine to market, it is not fast enough, and Zika has already spread worldwide.

Many other diseases do not have vaccines, and developing them takes too long when a pandemic is already under way. We need faster pipelines, such as the one that the [Coalition for Epidemic Preparedness Innovations](http://www.nejm.org/doi/full/10.1056/NEJMp1613577) is trying to create, to preemptively develop vaccines for diseases predicted to cause outbreaks in the near future.

Point-of-Care Diagnostics

Even with such efforts, vaccines will not be ready for many diseases and would not even be an option for novel or artificially engineered pathogens. With no vaccine for Ebola, our [next best strategy](http://www.thelancet.com/journals/lancet/article/PIIS0140-6736%2814%2961696-2/fulltext) was to identify who was infected as quickly as possible and isolate them before they infected others. Because Ebola’s symptoms were identical to common illnesses like malaria, diagnosis required laboratory testing that could not be easily scaled. As a result, many patients were only tested [after several days of being contagious and infecting others](http://www.nejm.org/doi/full/10.1056/NEJMoa1411100#t=article). Some were never tested at all, and about 40% of patients in Ebola treatment centers [did not actually have Ebola](https://www.cdc.gov/mmwr/preview/mmwrhtml/mm63e1114a1.htm).

Many dangerous pathogens similarly require laboratory testing that is difficult to scale. Florida, for example, has not been able to expand testing for Zika, so [pregnant women wait weeks to know if their babies might be affected](https://www.nytimes.com/2016/09/13/us/zika-test-delays-florida-pregnant.html). What’s needed are point-of-care diagnostics that, like pregnancy tests, can be used by frontline responders or patients themselves to detect infection right away, where they live. These tests already exist for many diseases, and the technology behind them is well-established. However, the process for their validation [is slow and messy](https://hbr.org/2016/08/the-fight-against-zika-cant-wait-for-a-vaccine). Point-of-care diagnostics for Ebola, for example, were available but [never used because of such bottlenecks](http://www.nature.com/news/researchers-frustrated-by-failure-to-roll-out-game-changing-ebola-test-1.17862).

Greater Global Coordination

We need stronger global coordination. The responsibility for controlling pandemics is fragmented, spread across too many players with no unifying authority. In Guinea we forged a response out of an amalgam of over 30 organizations, each of which had its own priorities. In Ebola’s aftermath, there have been [calls for a mechanism](http://www.nejm.org/doi/full/10.1056/NEJMp1502918#t=article) for responding to pandemics similar to the advance planning and training that NATO has in place for its numerous members to respond to military threats in a quick, coordinated fashion.

This is the right thinking, but we are far from seeing it happen. The errors that allowed Ebola to become a crisis replayed with Zika, and the WHO, which should anchor global action, [continues to suffer from a lack of credibility](http://gh.bmj.com/content/1/2/e000047).

Stronger Local Health Systems

International actors are essential but cannot parachute into countries and navigate local dynamics quickly enough to contain outbreaks. In Guinea it took months to establish the ground game needed to stop the pandemic, with Ebola continuing to spread in the meantime. We need to help developing countries establish health systems that can provide routine care and, when needed, coordinate with international responders to contain new outbreaks.

Local health systems could be established for [about half of the $3.6 billion](https://www.cdc.gov/vhf/ebola/pdf/cost-response.pdf) ultimately spent on creating an Ebola response from scratch. Access to routine care is also essential for knowing when an outbreak is taking root and establishing trust. For months, Ebola spread before anyone knew it was happening, and then lingered because communities who had never had basic health care [doubted the intentions of foreigners](http://www.nejm.org/doi/full/10.1056/NEJMp1508413#t=article) flooding into their villages. The [turning point](https://www.nytimes.com/2015/02/01/world/as-ebola-ebbs-in-africa-focus-turns-from-death-to-life.html) in the pandemic came when they began to trust what they were hearing about Ebola and understood what they needed to do to halt its spread: identify those exposed and safely bury the dead.

With Ebola and Zika, we lacked these four things — vaccines, diagnostics, global coordination, and local health systems — which are still urgently needed. However, prevailing political headwinds in the United States, which has played a key role in combatting pandemics around the world, threaten to make things worse. The Trump administration is seeking drastic budget cuts in funding for [foreign aid](https://www.nytimes.com/aponline/2017/02/28/us/politics/ap-us-trump-diplomatic-cutbacks.html) and [scientific research](http://www.sciencemag.org/news/2017/02/trump-s-2018-budget-will-squeeze-civilian-science-agencies). The U.S. State Department and U.S. Agency for International Development may lose over one-third of their budgets, including [half of the funding the U.S. usually provides to the UN.](http://foreignpolicy.com/2017/03/13/white-house-seeks-to-cut-billions-in-funding-for-united-nations/) The National Institutes of Health, which has been on the vanguard of vaccines and diagnostics research, [may also face cuts](http://www.sciencemag.org/news/2017/02/trump-s-2018-budget-will-squeeze-civilian-science-agencies). The Centers for Disease Control and Prevention, which has been [at the forefront of responding to outbreaks](https://www.cdc.gov/globalhealth/security/ghsagenda.htm), remains [without a director](http://www.vox.com/2017/3/4/14803596/trump-pandemic-response-global-health-cdc), and, if the Affordable Care Act is repealed, would lose [$891 million, 12% of its overall budget](https://www.statnews.com/2017/03/07/cdc-budget-obamacare-repeal/), provided to it for [immunization programs, monitoring and responding to outbreaks, and other public health initiatives](https://www.washingtonpost.com/news/to-your-health/wp/2017/03/08/obamacare-repeal-guts-crucial-public-health-funds/?utm_term=.a737287260ac).

Investing in our ability to prevent and contain pandemics through revitalized national and international institutions should be our shared goal. However, if U.S. agencies become less able to respond to pandemics, leading institutions from other nations, such as [Institut Pasteur](https://www.pasteur.fr/en) and the [National Institute of Health and Medical Research](http://english.inserm.fr) in France, the [Wellcome Trust](https://wellcome.ac.uk) and [London School of Hygiene and Tropical Medicine](http://www.lshtm.ac.uk) in the UK, and nongovernmental organizations (NGOs have done [instrumental research](http://www.thelancet.com/journals/lancet/article/PIIS0140-6736%2815%2961042-X/fulltext) and [response work](http://www.doctorswithoutborders.org/our-work/medical-issues/epidemics) in previous pandemics), would need to step in to fill the void.

There is no border wall against disease. Pandemics are an existential threat on par with climate change and nuclear conflict. We are at a critical crossroads, where we must either take the steps needed to prepare for this threat or become even more vulnerable. It is only a matter of time before we are hit by a deadlier, more contagious pandemic. Will we be ready?

### Nuke war

#### Nuke war doesn’t cause extinction --- tons of warrants

Ladish 20 [Jeffery Ladish, security researcher and risk consultant focused on global catastrophic threats. 11-6-2020, “Nuclear war is unlikely to cause human extinction” Effective Altruism Forum, Accessed 3-7-2022, <https://jeffreyladish.com/Nuclear_war_is_unlikely_to_cause_human_extinction/> ww

\*figures ommited\*

A number of people have claimed that a full-scale nuclear war is likely to cause human extinction. I have investigated this issue in depth and concluded that even a full scale nuclear exchange is unlikely (<1%) to cause human extinction.∂ By a full-scale war, I mean a nuclear exchange between major world powers, such as the US, Russia, and China, using the complete arsenals of each country. The total number of warheads today (14,000) is significantly smaller than during the height of the cold war (70,000). While extinction from nuclear war is unlikely today, it may become more likely if significantly more warheads are deployed or if designs of weapons change significantly.∂ There are three potential mechanisms of human extinction from nuclear war:∂ 1) Kinetic destruction∂ 2) Radiation∂ 3) Climate alteration∂ Only 3) is remotely plausible with existing weapons, but let’s go through them all.∂ 1) Kinetic destruction∂ There simply aren’t enough nuclear warheads to kill everyone directly with kinetic force, and there likely never will be. There are ~14,000 nuclear weapons in the world, and let’s suppose they have an average yield of something like 1 megaton. This is a conservative guess, the actual average is probably closer to 100 kilotons. With a 1 megaton warhead, you can create a fireball covering 3 km², and a moderate pressure wave that knocks down most residential houses covering 155 km². The former kills nearly everyone and the latter kills a decent percentage of people but not everyone. Let’s be conservative and assume the pressure wave kills everyone in its radius. 14,000 \* 155 = 2.17 million km². The New York Metro area is 8,683 km². So all the nuclear weapons in the world could destroy about 250 New York Metro areas. This is a lot! But not near enough, even if someone intentionally tried to hit all the populations at once. Total land surface of earth is: 510.1 million km². Urban area, by one estimate, is about 2%, or 10.2 million km.² Since the total possible area destroyed from nuclear weapons is ~2.17 million km² is considerably less than a lower bound on the area of human habitation, 10.2 million km², there should be basically no risk of human extinction from kinetic destruction.∂ The even more obvious reason why kinetic damage wouldn’t lead to human extinction is that nuclear states only threaten one or several countries at a time, and never the population centers of the entire world. Even if NATO countries and Russia and China all went to war at the same time, Africa, Australia, South America, and other neutral regions would be spared any kinetic damage.∂ 2) Radiation∂ Radiation won’t kill everyone because there aren’t enough weapons, and radiation from them would be concentrated in some areas and wholly absent from other areas. Even in the worst affected areas, lethal radiation from fallout would drop to survivable levels within weeks. Here it’s worth noting that there is an inherent tradeoff between length of halflife and energy released by radionuclides. The shorter the half life the more energy will be released, and the longer the half life the less energy. The fallout products from modern nuclear weapons are very lethal, but only for days to several weeks.∂ Let’s try the same calculation we used with kinetic damage, and see if an attack aimed at optimizing fallout for killing everyone could succeed. Using Nukemap again, I’ll go with the fallout contour for 100 rads per hour. 400 rads is thought too be enough to kill 50% of people, so 100 rads per hour is likely to kill most all people not in some kind of shelter. We need to switch to using a groundburst detonation rather than an airburst detonation, because groundbursts create far more fallout. A 1mt ground burst would create an area of about 8,000 km² of >100 rads per hour. Okay, multiple that by 14,000 warheads, and we get 112 million km². That’s a lot! It’s still less than the 510.1 million km² of earth’s land mass, but it’s a lot more than the ~10.2 million km² of urban space. Presumably this is enough to cover every human habitation, so in principle, it might be possible to kill everyone with radiation from existing nuclear weapons.∂ In practice, it would be almost impossible to kill every human via radiation with the existing nuclear arsenals, even if they were targeted explicitly for this purpose. The first reason is that fallout patterns are very uneven. After a ground burst, fallout is carried by the wind. Some areas will be hit bad and some areas will be hardly affected by fallout. Even if most human population centers were covered, a few areas would almost certainly escape.∂ Two other things make extinction by radiation unlikely. Many countries, especially in the southern hemisphere, are unlikely to be affected by fallout much at all. Since most of these countries are likely to be neutral in a conflict, and not near combatant countries, they should be relatively safe from fallout. While fallout might travel hundreds of kms, it still won’t reach places separated by greater distances. Fallout that reaches the upper atmosphere will eventually fall back down, but usually after the period of lethal radioactivity. The other mitigating factor is that in typical nuclear war plans, ground bursts are usually restricted to hardened targets, and air bursts are favored for population and industry centers. This is because air bursts maximize the size of the destructive pressure wave. Air burst detonations result in little lethal fallout reaching the ground, so populations not downwind of military targets would likely be safe from the worst of the radiological effects in a war scenario.∂ The final protection from extinction by radiation is simply large amounts of mass between people and the radiation source, in other words, fallout shelters. After several weeks, the radionuclides in fallout from ground burst detonations will have decayed to the point where humans can survive outside of shelters. Many fallout shelters exist in the world, and many more could be made easily in a day or two with a shovel, some ground, and some boards. Even if lethally radioactive fallout from ground bursts covered all population centers, many humans would still survive in shelters.∂ The risks of extinction from nuclear-weapon-induced-radiation wouldn’t be complete without discussing two factors: nuclear power plants and radiological weapons. I’m only going to cover these briefly, but they both don’t change the conclusions much.∂ Nuclear power plants could be targeted by nuclear weapons to create large amounts of fallout with a longer half-life but less energy per unit time. The main concern here is that nuclear power plants and spent fuel sites contain a much greater mass of radioactive material than nuclear missiles can carry. The danger comes primarily from spreading the already very radiative spent or unspent nuclear fuel. The risk this poses requires a longer analysis, but the short version is that while nuking a nuclear power plant or stored fuel site would indeed create some pretty long-lived fallout it would still be concentrated in a relatively small area. Fortunately, even a nuclear detonation wouldn’t spread the nuclear fuel more than several hundred km at most. Having regions of countries covered in spent nuclear fuel would be awful, but it doesn’t much raise the risk of extinction.∂ Radiological weapons are nuclear weapons designed to maximize the spread of lethal fallout rather than destructive yield. The particular concern from the extinction perspective is that they can be designed to create fallout that continues to emit levels of radiation that can make an area uninhabitable for months to years. These kind of radiological weapons kill more slowly, but they still kill. In principle, radiological weapons could be used to kill everyone on earth. However, in practice, the same constraints that apply to standard nuclear weapons apply to weapons optimized for long-lasting fallout, as well as some additional constraints. Radiological weapons wouldn’t produce more fallout than standard warheads, they would just produce fallout with different characteristics. As a result the amount of radiological weapons required to cover every part of earth’s surface would be massively expensive (likely as expensive as the largest existing nuclear arsenals), and serve no military purpose. Their inefficiency in destruction and death compared to standard nuclear weapons is probably why radiological weapons have never been developed or deployed in large numbers. This makes them an ongoing theoretical concern, but not an existential risk in the immediate future. A concerning development is Russia’s claim to have developed a large-yield (100mt) submersible nuclear weapon with the suggestion that it could be used as a radiological weapon, but even if this is true, it’s unlikely to be deployed in large numbers.∂ 3) Climate alteration∂ The bulk of the risk of human extinction from nuclear weapons come from risks of catastrophic climate change, nuclear winter, due to secondary effects from nuclear detonations. However, even in most full-scale nuclear exchange scenarios, the resulting climate effects are unlikely to cause human extinction.∂ Reasons for this:∂ a) Under scenarios where a severe nuclear winter occurs as described by Robock et al, some human populations would likely survive. b) The Robock group’s models are probably overestimating the risk c) Nuclear war planners are aware of nuclear winter risks and can incorporate these risks into their targeting plans∂ Before diving into each subject, it’s worth understanding the background of nuclear winter research. In the 1980s a group of atmospheric scientists proposed the hypothesis that a nuclear war would result in massive firestorms in burning cities, which would loft particles high into the atmosphere and cause catastrophic cooling that would last for years. Many found it alarming that such an effect could be possible and go unnoticed for decades while the risk existed. Some scientists also thought the proposed effect was too strong, or unlikely to occur at all. Until a few years ago, if you looked only at peer reviewed literature you would only find papers forecasting severe nuclear winter effects in the event of a nuclear war. Understandably, many people assumed that this was the scientific consensus. Unfortunately, this misrepresented the scientific community’s state of uncertainty about the risks of nuclear war. There have only ever been a small numbers of papers published about this topic (<15 probably), mostly from one group of researchers, despite the topic being one of existential importance.∂ I’m very glad Robock, Toon, and others have spent much of their careers studying nuclear winter effects, and their models are useful in estimating potential climate change caused by nuclear war. However, I’ve become less convinced over time the Robock model is largely correct. See section B below for why I’ve changed my mind. However, I’m quite uncertain about the probability of strong cooling effects from nuclear war, and am still quite concerned about the potential for severe cooling, even if the risk of extinction from such events is small.∂ A: Under scenarios where a severe nuclear winter occurs as described by Robock et al, some human populations would likely survive.∂ The latest and most detailed model of potential cooling effects from a fullscale nuclear exchange comes from, Robock et al., “Nuclear winter revisited with a modern climate model and current nuclear arsenals: Still catastrophic consequences” found here.∂ The effects from this model are severe. In the 150Tg case, after a year, summer temperatures in the Northern hemisphere are 10-30 degrees C cooler. The effects are less severe at the equator (5 degrees C), but basically all places in the world are affected. The most likely outcome is that most people starve to death. Many would freeze too, but starvation is likely the greatest risk. Even in this model, it appears that in equatorial regions, some farming would still be possible, enough for some populations to survive. After a 10-15 years, agriculture in most of the world would be possible at reduced capacity.∂ Surface air temperature changes for the 150 Tg case averaged for June, July, and August of the year of smoke injection and the next year. Robock et al., 2007∂ Carl Shulman asked one of the authors of this paper, Luke Oman, his probability that the 150Tg nuclear winter scenario discussed in the paper would result in human extinction, the answer he gave was “in the range of 1 in 10,000 to 1 in 100,000.” This strikes me as quite plausible, though one expert opinion is no substitute for a deep analysis. The Q&A with Oman contains his reasoning for this assessment.∂ Two different analyses are required to calculate the chances of human extinction from nuclear winter. The first is the analysis of the climate change that could result from a nuclear war, and the second is the adaptive capacity of human groups to these climate changes. I have not seen an in depth analysis of the former, but I believe such an assessment would be worthwhile.∂ My own guess is that humans are capable of surviving far more severe climate shifts than those projected in nuclear winter scenarios. Humans are more robust than most any other mammal to drastic changes in temperature, as evidenced by our global range, even in pre-historic times. While a loss of most agriculture would likely kill most people on earth, modern technology would enable some populations to survive. Great stores of food currently exist in the world, and it is l likely that some of these would be seized and protected by small groups, providing enough food to last for years. While even such populations with food stores wouldn’t have enough to survive for 10-15 years, such food stores would give groups time to adapt to new food sources. The organization ALLFED has explored a number of alternative food sources that could keep populations alive in the event of a nuclear war or other large solar disruption, and I expect great necessity to drive the discovery of even more in the event of such a disaster.∂ B: The Robock group’s models are probably overestimating the risk∂ The nuclear winter model at its simplest: Nuclear detonations → Fires in cities → Firestorms in cities → Lofted black carbon into the upper atmosphere → black carbon persists in upper atmosphere, reflecting sunlight and causes massive cooling∂ Each step is required in order for the effect to occur. If nuclear war causes massive fires in cities but does not lead to firestorms that loft particles, then no long term cooling is going to occur. Some of these steps are easier to model than others. Based on my reading of the literature, the greatest uncertainties involve the dynamics of cities burning after a nuclear attack, and whether the conditions would produce firestorms sufficient to loft large numbers of particles high enough in the atmosphere to persist for years.∂ We’re finally beginning to see some healthy debate about some of these questions in the scientific literature. Alan Robock’s group published a paper in 2007 that found significant cooling effects even from a relatively limited regional war. A group from Los Alamos, Reisner et al, published a paper in 2018 that reexamined some of the assumptions that went into Robock et al’s model, and concluded that global cooling was unlikely in such a scenario. Robock et al. responded, and Reisner et al responded to the response. Both authors bring up good points, but I find Reisner’s position more compelling. This back and forth is worth reading for those who want to investigate deeper. Unfortunately Reisner’s group has not published an analysis on potential cooling effects from a modern full scale nuclear exchange, rather than a limited regional exchange. Even so, it’s not hard to extrapolate that Reisner’s model would result in far less cooling than Robock’s model in the equivalent situation.∂ C: Nuclear war planners are aware of nuclear winter risks and can incorporate these risks into their targeting plans∂ A very simple way to reduce risks from nuclear winter is to refrain from targeting cities with nuclear weapons. The proposed mechanism behind nuclear winter results from cities burning, not ground bursts on military targets. I’ve spoken with some of the officials in the US defense establishment responsible for nuclear war planning, and they’re well aware of the potential risks from nuclear winter. Of course, being aware of the risks does not guarantee they will have reasoned about the risks well, or have engaged in good risk management practices. However, the fact that this risk is well publicized makes it more likely that nuclear war planners will take steps to minimize blowback risk from climate effects.∂ It’s hard to know to what extent this has been done. Nuclear war plans are classified, and as far as we know current US nuclear war plans do target cities under some circumstances but not under others. However, the defense establishment has access to classified information and models that we civilians do not have, in addition to all the public material. I’m confident that nuclear war planners have thought deeply about the risks of climate change from nuclear war, even though I don’t know their conclusions or bureaucratic constraints. All else being equal, the knowledge of these risks makes military planners less likely to accidentally cause human extinction.∂ Conclusion∂ This post discussed the three plausible mechanisms of human extinction caused by nuclear weapons. The fact that one of these mechanisms, nuclear winter, wasn’t characterized until the 1980s, is a good reminder of the possibility of unknown unknowns. While nuclear tests provided information about the effects of these weapons, the test environments were significantly different than war environments. Large model uncertainties remain. Given that the greatest existential threat from nuclear war appears to be from climate impacts, it would be great to see more researchers study the climate effects from nuclear war and the resilience capacity of different human groups.∂ There appear to be several interventions possible for reducing existential risk from nuclear war. At the policy level, a commitment from the largest nuclear powers to refrain from targeting the majority of cities would reduce risk of accidental omnicide. Improving the maximum resilience capacity of human populations best positioned to survive a nuclear winter would also make humanity less vulnerable to nuclear winter, and could also protect against other existential threats.

#### Nuclear war now spurs political will for disarmament without causing extinction.

Deudney 18 [Associate Professor of Political Science at Johns Hopkins University. 03/15/2018. “The Great Debate.” The Oxford Handbook of International Security. www.oxfordhandbooks.com, doi:10.1093/oxfordhb/9780198777854.013.22] Recut Justin

Although nuclear war is the oldest of these technogenic threats to civilization and human survival, and although important steps to restraint, particularly at the end of the Cold War, have been achieved, the nuclear world is increasingly changing in major ways, and in almost entirely dangerous directions. The third “bombs away” phase of the great debate on the nuclear-political question is more consequentially divided than in the first two phases. Even more ominously, most of the momentum lies with the forces that are pulling states toward nuclear-use, and with the radical actors bent on inflicting catastrophic damage on the leading states in the international system, particularly the United States. In contrast, the arms control project, although intellectually vibrant, is largely in retreat on the world political stage. The arms control settlement of the Cold War is unraveling, and the world public is more divided and distracted than ever. With the recent election of President Donald Trump, the United States, which has played such a dominant role in nuclear politics since its scientists invented these fiendish engines, now has an impulsive and uninformed leader, boding ill for nuclear restraint and effective crisis management. Given current trends, it is prudent to assume that sooner or later, and probably sooner, nuclear weapons will again be the used in war. But this bad news may contain a “silver lining” of good news. Unlike a general nuclear war that might have occurred during the Cold War, such a nuclear event now would probably not mark the end of civilization (or of humanity), due to the great reductions in nuclear forces achieved at the end of the Cold War. Furthermore, politics on “the day after” could have immense potential for positive change. The survivors would not be likely to envy the dead, but would surely have a greatly renewed resolution for “never again.” Such an event, completely unpredictable in its particulars, would unambiguously put the nuclear-political question back at the top of the world political agenda. It would unmistakeably remind leading states of their vulnerability It might also trigger more robust efforts to achieve the global regulation of nuclear capability. Like the bombings of Hiroshima and Nagasaki that did so much to catalyze the elevated concern for nuclear security in the early Cold War, and like the experience “at the brink” in the Cuban Missile Crisis of 1962, the now bubbling nuclear caldron holds the possibility of inaugurating a major period of institutional innovation and adjustment toward a fully “bombs away” future.

#### Can’t rebuild industrial civilization.

John Jacobi 17. [Leads an environmentalist research institute and collective, citing Fred Hoyle, British astronomer, formulated the theory of stellar nucleosynthesis, coined the term “big bang,” recipient of the Gold Medal of the Royal Astronomical Society, professor at the Institute of Astronomy, Cambridge University. 05-27-17. “Industrial Civilization Could Not Be Rebuilt.” The Wild Will Project. <https://www.wildwill.net/blog/2017/05/27/industrial-civilization-not-rebuilt/>] Recut Justin

A suggestion, for the sake of thought: If industrial civilization collapsed, it probably could not be rebuilt. Civilization would exist again, of course, but industry appears to be a one-time experiment. The astronomist Fred Hoyle, exaggerating slightly, writes: It has often been said that, if the human species fails to make a go of it here on Earth, some other species will take over the running. In the sense of developing high intelligence this is not correct. We have, or soon will have, exhausted the necessary physical prerequisites so far as this planet is concerned. With coal gone, oil gone, high-grade metallic ores gone, no species however competent can make the long climb from primitive conditions to high-level technology. This is a one-shot affair. If we fail, this planetary system fails so far as intelligence is concerned. The same will be true of other planetary systems. On each of them there will be one chance, and one chance only. Hoyle overstates all the limits we actually have to worry about, but there are enough to affirm his belief that industry is a “one-shot affair.” In other words, if industry collapsed then no matter how quickly scientific knowledge allows societies to progress, technical development will hit a wall because the builders will not have the needed materials. For example, much of the world’s land is not arable, and some of the land in use today is only productive because of industrial technics developed during the agricultural revolution in the 60s, technics heavily dependent on oil. Without the systems that sustain industrial agriculture much current farm land could not be farmed; agricultural civilizations cannot exist there, at least until the soil replenishes, if it replenishes. And some resources required for industrial progress, like coal, simply are not feasibly accessible anymore. Tainter writes: . . . major jumps in population, at around A.D. 1300, 1600, and in the late eighteenth century, each led to intensification in agriculture and industry. As the land in the late Middle Ages was increasingly deforested to provide fuel and agricultural space for a growing population, basic heating, cooking, and manufacturing needs could no longer be met by burning wood. A shift to reliance on coal began, gradually and with apparent reluctance. Coal was definitely a fuel source of secondary desirability, being more costly to obtain and distribute than wood, as well as being dirty and polluting. Coal was more restricted in its spatial distribution than wood, so that a whole new, costly distribution system had to be developed. Mining of coal from the ground was more costly than obtaining a quantity of wood equivalent in heating value, and became even more costly as the 54 most accessible reserves of this fuel were depleted. Mines had to be sunk ever deeper, until groundwater flooding became a serious problem. Today, most easily accessible natural coal reserves are completely depleted. Thus, societies in the wake of our imagined collapse would not be able to develop fast enough to reach the underground coal. As a result of these limits, rebuilding industry would take at least thousands of years — it took 10,000 years the first time around. By the time a civilization reached the point where it could do something about industrial scientific knowledge it probably would not have the knowledge anymore. It would have to develop its sciences and technologies on its own, resulting in patterns of development that would probably look similar to historical patterns. Technology today depends on levels of complexity that must proceed in chronological stages. Solar panels, for example, rely on transportation infrastructure, mining, and a regulated division of labor. And historically the process of developing into a global civilization includes numerous instances of technical regression. The natives of Tasmania, for example, went from a maritime society to one that didn’t fish, build boats, or make bows and arrows. Rebuilding civilization would also be a bad idea. Most, who are exploited by rather than benefit from industry, would probably not view a rebuilding project as desirable. Even today, though citizens of first-world nations live physically comfortable lives, their lives are sustained by the worse off lives of the rest of the world. “Civilization . . . has operated two ways,” Paine writes, “to make one part of society more affluent, and the other more wretched, than would have been the lot of either in a natural state.” Consider the case of two societies in New Zealand, the Maori and the Moriori. Both are now believed to have originated out of the same mainland society. Most stayed and became the Maori we know, and some who became the Moriori people settled on the Chatham Islands in the 16th century. Largely due to a chief named Nunuku-whenua, the Moriori had a strict tradition of solving inter-tribal conflict peacefully and advocating a variant of passive resistance; war, cannibalism, and killing were completely outlawed. They also renounced their parent society’s agricultural mode of subsistence, relying heavily on hunting and gathering, and they controlled their population growth by castrating some male infants, so their impact on the non-human environment around them was minimal. In the meantime, the Maori continued to live agriculturally and developed into a populated, complex, hierarchical, and violent society. Eventually an Australian seal-hunting ship informed the Maori of the Moriori’s existence, and the Maori sailed to the Chathams to explore: . . . over the course of the next few days, they killed hundreds of Moriori, cooked and ate many of the bodies, and enslaved all the others, killing most of them too over the next few years as it suited their whim. A Moriori survivor recalled, “[The Maori] commenced to kill us like sheep . . . [We] were terrified, fled to the bush, concealed ourselves in holes underground, and in any place to escape our enemies. It was of no avail; we were discovered and eaten – men, women, and children indiscriminately.” A Maori conqueror explains, “We took possession . . . in accordance with our customs and we caught all the people. Not one escaped. Some ran away from us, these we killed, and others we killed – but what of that? It was in accordance with our custom.” Furthermore, we can deduce from the ubiquitous slavery in all the so-called “great civilizations” like Rome or Egypt that any attempt to rebuild a similar civilization will involve slavery. And to rebuild industry, something similar to colonization and the Trans-Atlantic Slave Trade would probably have to occur once again. After all, global chattel slavery enabled the industrial revolution by financing it, extracting resources to be accumulated at sites of production, and exporting products through infrastructure that slavery helped sustain. So, if industrial society collapsed, who would be doing the rebuilding? Not anyone most people like. It is hard to get a man to willingly change his traditional way of life; even harder when his new life is going into mines. And though history demonstrates that acts like those of the Maori or slave traders are not beyond man’s will or ability, certainly most in industrial society today would not advocate going through the phases required to reach the industrial stage of development.

#### The mini-nuclear winter solves warming without causing extinction.

Sorin Adam Matei 12. – Ph.D., Associate Dean of Research and Professor of Communication, College of Liberal Arts and Brian Lamb School of Communication, Purdue University. 3-26-2012. ["A modest proposal for solving global warming: nuclear war – Sorin Adam Matei." Matei. <https://matei.org/ithink/2012/03/26/a-modest-proposal-for-solving-global-warming-nuclear-war/>] Recut Justin

We finally have a solution for global warming. A discussion on the board [The Straight Dope](http://boards.straightdope.com/sdmb/showthread.php?t=646285) about the likely effect of a nuclear war brought up the hypothesis that a nuclear war on a large scale could produce a mini-nuclear winter. Why? Well, the dust and debris sent into the atmosphere by the conflagrations, plus the smoke produced by the fires started by the explosions would cover the sun for a period long enough to lower the temperature by as much as 40 degrees Celsius for a few months and by up to 2-6 degree Celsius for a few years. One on top of the other, according to this [Weather Wunderground contributor](http://www.wunderground.com/blog/JeffMasters/comment.html?entrynum=1208), who cites a[bona fide research paper on nuclear winter](http://www.atmos-chem-phys.org/7/2003/2007/acp-7-2003-2007.pdf), after everything would settle down we would be back to 1970s temperatures. Add to this the decline in industrial production and global oil consumption due to industrial denuding of most large nations and global warming simply goes away. I wonder what [Jonathan Swift would have thought about this proposal?](http://www.gutenberg.org/files/1080/1080-h/1080-h.htm)

#### Extinction

Ng 19 [Yew-Kwang; May 2019; Professor of Economics at Nanyang Technology University, Fellow of the Academy of Social Sciences in Australia and Member of the Advisory Board at the Global Priorities Institute at Oxford University, Ph.D. in Economics from Sydney University; Global Policy, “Keynote: Global Extinction and Animal Welfare: Two Priorities for Effective Altruism,” vol. 10, no. 2, p. 258-266; RP]

Catastrophic climate change

Though by no means certain, CCC causing global extinction is possible due to interrelated factors of non‐linearity, cascading effects, positive feedbacks, multiplicative factors, critical thresholds and tipping points (e.g. Barnosky and Hadly, [2016](https://onlinelibrary-wiley-com.proxy.lib.umich.edu/doi/full/10.1111/1758-5899.12647#gpol12647-bib-0005); Belaia et al., [2017](https://onlinelibrary-wiley-com.proxy.lib.umich.edu/doi/full/10.1111/1758-5899.12647#gpol12647-bib-0008); Buldyrev et al., [2010](https://onlinelibrary-wiley-com.proxy.lib.umich.edu/doi/full/10.1111/1758-5899.12647#gpol12647-bib-0016); Grainger, [2017](https://onlinelibrary-wiley-com.proxy.lib.umich.edu/doi/full/10.1111/1758-5899.12647#gpol12647-bib-0027); Hansen and Sato, [2012](https://onlinelibrary-wiley-com.proxy.lib.umich.edu/doi/full/10.1111/1758-5899.12647#gpol12647-bib-0029); IPCC [2014](https://onlinelibrary-wiley-com.proxy.lib.umich.edu/doi/full/10.1111/1758-5899.12647#gpol12647-bib-0031); Kareiva and Carranza, [2018](https://onlinelibrary-wiley-com.proxy.lib.umich.edu/doi/full/10.1111/1758-5899.12647#gpol12647-bib-0033); Osmond and Klausmeier, [2017](https://onlinelibrary-wiley-com.proxy.lib.umich.edu/doi/full/10.1111/1758-5899.12647#gpol12647-bib-0056); Rothman, [2017](https://onlinelibrary-wiley-com.proxy.lib.umich.edu/doi/full/10.1111/1758-5899.12647#gpol12647-bib-0066); Schuur et al., [2015](https://onlinelibrary-wiley-com.proxy.lib.umich.edu/doi/full/10.1111/1758-5899.12647#gpol12647-bib-0069); Sims and Finnoff, [2016](https://onlinelibrary-wiley-com.proxy.lib.umich.edu/doi/full/10.1111/1758-5899.12647#gpol12647-bib-0072); Van Aalst, [2006](https://onlinelibrary-wiley-com.proxy.lib.umich.edu/doi/full/10.1111/1758-5899.12647#gpol12647-bib-0079)).[7](https://onlinelibrary-wiley-com.proxy.lib.umich.edu/doi/full/10.1111/1758-5899.12647#gpol12647-note-1009_67)

A possibly imminent tipping point could be in the form of ‘an abrupt ice sheet collapse [that] could cause a rapid sea level rise’ (Baum et al., [2011](https://onlinelibrary-wiley-com.proxy.lib.umich.edu/doi/full/10.1111/1758-5899.12647#gpol12647-bib-0006), p. 399). There are many avenues for positive feedback in global warming, including:

* the replacement of an ice sea by a liquid ocean surface from melting reduces the reflection and increases the absorption of sunlight, leading to faster warming;
* the drying of forests from warming increases forest fires and the release of more carbon; and
* higher ocean temperatures may lead to the release of methane trapped under the ocean floor, producing runaway global warming.

Though there are also avenues for negative feedback, the scientific consensus is for an overall net positive feedback (Roe and Baker, [2007](https://onlinelibrary-wiley-com.proxy.lib.umich.edu/doi/full/10.1111/1758-5899.12647#gpol12647-bib-0065)). Thus, the Global Challenges Foundation ([2017](https://onlinelibrary-wiley-com.proxy.lib.umich.edu/doi/full/10.1111/1758-5899.12647#gpol12647-bib-0026), p. 25) concludes, ‘The world is currently completely unprepared to envisage, and even less deal with, the consequences of CCC’.

The threat of sea‐level rising from global warming is well known, but there are also other likely and more imminent threats to the survivability of mankind and other living things. For example, Sherwood and Huber ([2010](https://onlinelibrary-wiley-com.proxy.lib.umich.edu/doi/full/10.1111/1758-5899.12647#gpol12647-bib-0071)) emphasize the adaptability limit to climate change due to heat stress from high environmental wet‐bulb temperature. They show that ‘even modest global warming could … expose large fractions of the [world] population to unprecedented heat stress’ p. 9552 and that with substantial global warming, ‘the area of land rendered uninhabitable by heat stress would dwarf that affected by rising sea level’ p. 9555, making extinction much more likely and the relatively moderate damages estimated by most integrated assessment models unreliably low.

While imminent extinction is very unlikely and may not come for a long time even under business as usual, the main point is that we cannot rule it out. Annan and Hargreaves ([2011](https://onlinelibrary-wiley-com.proxy.lib.umich.edu/doi/full/10.1111/1758-5899.12647#gpol12647-bib-0004), pp. 434–435) may be right that there is ‘an upper 95 per cent probability limit for S [temperature increase] … to lie close to 4°C, and certainly well below 6°C’. However, probabilities of 5 per cent, 0.5 per cent, 0.05 per cent or even 0.005 per cent of excessive warming and the resulting extinction probabilities cannot be ruled out and are unacceptable. Even if there is only a 1 per cent probability that there is a time bomb in the airplane, you probably want to change your flight. Extinction of the whole world is more important to avoid by literally a trillion times.

#### The military is developing isomer bombs – testing destroys the universe.

Gary S. Bekkum 4, Founder of Spacetime Threat Assessment Report Research, Founder of STARstream Research, Futurist, “American Military is Pursuing New Types of Exotic Weapons”, Pravda, 8-30, <https://www.pravdareport.com/science/5527-weapons/>

In recent years it has been discovered that our universe is being blown apart by a mysterious anti-gravity effect called "dark energy". Mainstream physicists are scrambling to explain this mysterious acceleration in the expansion of the universe. Some physicists even believe that the expansion will lead to "The Big Rip" when all of the matter in the universe is torn asunder - from clusters of galaxies in deep space down to the tiniest atomic particles. The universe now appears to be made of two unknowns - roughly 23% is "dark matter", an invisible source of gravity, and roughly 73% is "dark energy", an invisible anti-gravity force. Ordinary matter constitutes perhaps 4 percent of the universe. Recently the British science news journal "New Scientist" revealed that the American military is pursuing new types of exotic bombs - including a new class of isomeric gamma ray weapons. Unlike conventional atomic and hydrogen bombs, the new weapons would trigger the release of energy by absorbing radiation, and respond by re-emitting a far more powerful radiation. In this new category of gamma-ray weapons, a nuclear isomer absorbs x-rays and re-emits higher frequency gamma rays. The emitted gamma radiation has been reported to release 60 times the energy of the x-rays that trigger the effect. The discovery of this isomer triggering is fairly recent, and was first reported in a 1999 paper by an international group of scientists. Although this controversial development has remained fairly obscure, it has not been hidden from the public. Beyond the visible part of defense research is an immense underground of secret projects considered so sensitive that their very existence is denied. These so-called "black budget programs" are deliberately kept from the public eye and from most political leaders. CNN recently reported that in the United States the black budget projects for 2004 are being funded at a level of more than 20 billion dollars per year. In the summer of 2000 I contacted Nick Cook, the former aviation editor and aerospace consultant to Jane's Defence Weekly, the international military affairs journal. Cook had been investigating black budget super-secret research into exotic physics for advanced propulsion technologies. I had been monitoring electronic discussions between various American and Russian scientists theorizing about rectifying the quantum vacuum for advanced space drive. Several groups of scientists, partitioned into various research organizations, were exploring what NASA calls "Breakthrough Propulsion Physics" - exotic technologies for advanced space travel to traverse the vast distances between stars. Partly inspired by the pulp science fiction stories of their youth, and partly by recent reports of multiple radar tracking tapes of unidentified objects performing impossible maneuvers in the sky, these scientists were on a quest to uncover the most likely new physics for star travel. The NASA program was run by Marc Millis, financed under the Advanced Space Transportation Program Office (ASTP). Joe Firmage, then the 28-year-old Silicon Valley CEO of the three billion dollar Internet firm US Web, began to fund research in parallel with NASA. Firmage hired a NASA Ames nano-technology scientist, Creon Levit, to run the "International Space Sciences Organization", a move which apparently alarmed the management at NASA. The San Francisco based Hearst Examiner reported that NASA's Office of Inspector General assigned Special Agent Keith Tate to investigate whether any proprietary NASA technology might have been leaking into the private sector. Cook was intrigued when I pointed out the apparent connections between various private investors, defense contractors, NASA, INSCOM (American military intelligence), and the CIA. While researching exotic propulsion technologies Cook had heard rumors of a new kind of weapon, a "sub-quantum atomic bomb", being whispered about in what he called ⌠the dark halls of defense research. Sub-quantum physics is a controversial re-interpretation of quantum theory, based on so-called pilot wave theories, where an information field controls quantum particles. The late Professor David Bohm showed that the predictions of ordinary quantum mechanics could be recast into a pilot wave information theory. Recently Anthony Valentini of the Perimeter Institute has suggested that ordinary quantum theory may be a special case of pilot wave theories, leaving open the possibility of new and exotic non-quantum technologies. Some French, Serbian and Ukrainian physicists have been working on new theories of extended electrons and solitons, so perhaps a sub-quantum bomb is not entirely out of the question. Even if the rumors of a sub-quantum bomb are pure fantasy, there is no question that mainstream physicists seriouslycontemplate a phase transition in the quantum vacuum as a real possibility. The quantum vacuum defies common sense, because empty space in quantum field theory is actually filled with virtual particles. These virtual particles appear and disappear far too quickly to be detected directly, but their existence has been confirmed by experiments that demonstrate their influence on ordinary matter.

"Such research should be forbidden!"

In the early 1970's Soviet physicists were concerned that the vacuum of our universe was only one possible state of empty space. The fundamental state of empty space is called the "true vacuum". Our universe was thought to reside in a "false vacuum", protected from the true vacuum by "the wall of our world". A change from one vacuum state to another is known as a phase transition. This is analogous to the transition between frozen and liquid water. Lev Okun, a Russian physicist and historian recalls Andrei Sakharov, the father of the Soviet hydrogen bomb, expressing his concern about research into the phase transitions of the vacuum. If the wall between vacuum states was to be breached, calculations showed that an unstoppable expanding bubble would continue to grow until it destroyed our entire universe! Sakharov declared that "Such research should be forbidden!" According to Okun, Sakharov feared that an experiment might accidentally trigger a vacuum phase transition.

#### Nanobots cause extinction

Daniels 17 [Jeff Daniels, reporter for CNBC, 3-17-2017, “Mini-nukes and mosquito-like robot weapons being primed for future warfare” CNBC, Accessed 3-7-2022, <https://www.cnbc.com/2017/03/17/mini-nukes-and-inspect-bot-weapons-being-primed-for-future-warfare.html> ww

Several countries are developing nanoweapons that could unleash attacks using mini-nuclear bombs and insect-like lethal robots.∂ While it may be the stuff of science fiction today, the advancement of nanotechnology in the coming years will make it a bigger threat to humanity than conventional nuclear weapons, according to an expert. The U.S., Russia and China are believed to be investing billions on nanoweapons research.∂ “Nanobots are the real concern about wiping out humanity because they can be weapons of mass destruction,” said Louis Del Monte, a Minnesota-based physicist and futurist. He’s the author of a just released book entitled “Nanoweapons: A Growing Threat To Humanity.”∂ One unsettling prediction Del Monte’s made is that terrorists could get their hands on nanoweapons as early as the late 2020s through black market sources.∂ According to Del Monte, nanoweapons are much smaller than a strand of human hair and the insect-like nanobots could be programmed to perform various tasks, including injecting toxins into people or contaminating the water supply of a major city.∂ Another scenario he suggested the nanodrone could do in the future is fly into a room and drop a poison onto something, such as food, to presumably target a particular individual.∂ The federal government defines nanotechnology as the science, technology and engineering of things so small they are measured on a nanoscale, or about 1 to 100 nanometers. A single nanometer is about 10 times smaller than the width of a human’s DNA molecule.∂ While nanotechnology has produced major benefits for medicine, electronics and industrial applications, federal research is currently underway that could ultimately produce nanobots.∂ For one, the Defense Advanced Research Projects Agency, or DARPA, has a program called the Fast Lightweight Autonomy program for the purpose to allow autonomous drones to enter a building and avoid hitting walls or objects. DARPA announced a breakthrough last year after tests in a hangar in Massachusetts.∂ Previously, the Army Research Laboratory announced it created an advanced drone the size of a fly complete with a set of “tiny robotic legs” — a major achievement since it presumably might be capable of entering a building undetected to perform surveillance, or used for more nefarious actions.∂ Frightening details about military nanotechnologies were outlined in a 2010 report from the Pentagon’s Defense Threat Reduction Agency, including how “transgenic insects could be developed to produce and deliver protein-based biological warfare agents, and be used offensively against targets in a foreign country.”∂ It also forecast “microexplosives” along with “nanobots serving as [bioweapons] delivery systems or as micro-weapons themselves, and inhalable micro-particles to cripple personnel.”∂ In the case of nanoscale robots, Del Monte said they can be the size of a mosquito or smaller and programmed to use toxins to kill or immobilize people; what’s more, these autonomous bots ultimately could become self-replicating.∂ Last month’s targeted assassination of Kim Jong-nam, the half-brother of North Korea’s ruler, was a stark reminder that toxins are available from a variety of sources and can be unleashed in public locations. It’s also been alleged by Russia’s Pravda paper that nanoweapons were used by the U.S. against foreign leaders.∂ A Cambridge University conference on global catastrophic risk found a 5 percent risk of nanotech weapons causing human extinction before the year 2100.∂ As for the mini-nukes, Del Monte expects they represent “the most horrific near-term nanoweapons.”∂ Nanotechnology opens up the possibility to manufacture mini-nuke components so small that they are difficult to screen and detect. Furthermore, the weapon (capable of an explosion equivalent to about 100 tons of TNT) could be compact enough to fit into a pocket or purse and weigh about 5 pounds and destroy large buildings or be combined to do greater damage to an area.∂ “When we talk about making conventional nuclear weapons, they are difficult to make,” he said. “Making a mini-nuke would be difficult but in some respects not as difficult as a full-blown nuclear weapon.”∂ Del Monte explained that the mini-nuke weapon is activated when the nanoscale laser triggers a small thermonuclear fusion bomb using a tritium-deuterium fuel. Their size makes them difficult to screen, detect and also there’s “essentially no fallout” associated with them.∂ Still, while the mini-nukes are powerful in and of themselves, he expects they are unlikely to wipe out humanity. He said a larger concern is the threat of the nanoscale robots, or nanobots because they are “the technological equivalent of biological weapons.”∂ The author said controlling these “smart nanobots” could become an issue since if lost, there could be potentially millions of these deadly nanobots on the loose killing people indiscriminately.∂ Earlier in his career, Del Monte said he held a secret clearance when he worked on Defense Department programs at Honeywell, ranging from missiles to satellites. He also previously worked on advanced computers at IBM and has several patents on microelectronics. In those roles, he led development of microelectronics and sensors.