## OFF

### T

#### Interpretation: The aff must defend more than one member nation of the WTO reducing IPP

Guide to Grammar 4 [The Guide to Grammar and Writing is sponsored by the Capital Community College Foundation, <http://guidetogrammar.org/grammar/plurals.htm>] whs-ee

The plural form of most nouns is created simply by adding the letter s.

more than one snake = snakes

more than one ski = skis

more than one Barrymore = Barrymores

#### Violation: they only defend Jordan

#### Vote neg:

#### 1] Precision – if we win definitions the aff is not topical. The resolution is the only predictable stasis point for dividing ground—any deviation justifies the aff arbitrarily jettisoning words in the resolution at their whim which decks negative ground and preparation because the aff is no longer bounded by the resolution.

#### 2] Limits and ground – forcing them to defend plural means they have to strategically choose nations that have common features like types of IP protections or geopolitical tensions to avoid losing to PICs which is a more limited caselist and ensures link magnitude to core topic generics while still allowing for a robust set of affs

#### Topicality is a voting issue that should be evaluated through competing interpretations – it tells the negative what they do and do not have to prepare for—there’s no way for the negative to know what constitutes a “reasonable interpretation” when we do prep – reasonability is arbitrary and causes a race to the bottom, proliferating abuse

#### No RVIs—it’s your burden to be topical. RVI’s deter legitimate theory like T and disclosure and are illogical because you shouldn’t win for doing a good thing .

## OFF

### NC – Disclosure

#### Interpretation: The aff must provide the correct version of their aff 30 minutes before the round

#### Violation: You told me it was on Sequoia’s wiki – then it wasn’t – then I got it from a coach – then you sent me a version that was completely different when I asked you, with half new cards and a water wars internal – completely changing our strat

#### Standards – clash – allows better more informed debates which increase advocacy skills and lead to argumentative refinement – independently, it breaks fairness because of an imbalance of prep

#### Jurisdiction – tournament rules say that you must disclose 30 minutes before the round otherwise it is “up to the judges to adjudicate perceived disclosure violations”

#### Drop the debater for deterrence and to recognize this affected the entire neg strategy

#### c/a rvis/t voting issue

## OFF

### NC – K

**The 1ac is then a new form of engaging in permanent preemption and biometric surveillance under the access of increasing care. This resonates with the US warfighting establishment, the Pentagon and CIA, who will redeploy the gains of the 1ac replacing the war on terror with a more insidious form of liberal violence**

**Cooper 06.** Melinda, graduated from the University of Paris VIII in 2001 and now holds a Postdoctoral Fellowship at the University of East Anglia. “Pre-empting Emergence The Biological Turn in the War on Terror.” Theory, Culture & Society 23(4) Theory, Culture & Society 2006 (SAGE, London, Thousand Oaks and New Delhi), Vol. 23(4): 113–135.

The same era witnessed something of a conceptual revolution in microbiology. The new microbiology tells us that our relation to microbial life is one of inescapable co-evolution. We are literally born of ancient alliances between bacteria and our own cells; microbes are inside us, in our history, but are also implicated in the continuing evolution of all the forms of life on earth. Biologists are discovering the biospheric dimensions of microbial life (the notion of a common evolution linking plants, animals and microbes with the geology of the earth and the composition of the atmosphere) and claiming that emerging infectious diseases are indissolubly linked with climate change. In the words of Margulis and Sagan, the environment ‘is regulated by life for life’ (1997: 94) and the common vector linking all these life forms and responsible for maintaining a breathable atmosphere is provided by bacterial evolution. At the same time, recent research is throwing new light on the specific processes of bacterial evolution, suggesting that bacteria evolve through highly accelerated processes of horizontal communication rather than chance mutation and selective pressures. It has been known, since the late 1950s, that bacteria are able to exchange sequences of DNA, often between unrelated species, through a general process of horizontal transfection.1 Only recently has the full extent of this mobility become apparent: under certain conditions, mobile sequences of bacterial DNA jump across species, genuses and kingdoms; once integrated into a new genome, these sequences are able to mutate and recombine; the bacterial genome itself is highly fluid, capable of mutating under stress and accelerating its own mutation rate (Ho, 1999: 168–200). While many leading infectious disease specialists continue to see microbial resistance as a form of (highly accelerated) Darwinian evolution (Lederberg et al., 1992), a growing body of new research is suggesting that bacteria don’t even have to wait around for random mutation to confer resistance; they can share it amongst themselves. The new microbiology is discovering that, for bacteria, resistance is literally contagious (Ho, 1999: 178–9; Levy and Novick, 1986). These new insights into microbial resistance have important ramifications for our understanding of genetic engineering technologies. **What molecular biology shared** in common **with** the political philosophy of 20thcentury pu**blic health was the belief that the future evolution of life could be predicted, controlled and (at worst) reverse-engineered on the basis of localized interventions.** It is this shared utopia that is coming under increasing scrutiny however, as recent research points to the possible links between the re-emergence of infectious disease and the use of recombinant DNA technologies. The production of ‘transgenic’ life forms, after all, hitches a ride on the same vectors of communication that are responsible for resistance – viruses, transposons (mobile genetic elements) and plasmids (extrachromosomal genetic elements) – while these vectors are routinely modified to render them even more prone to circulate and recombine. As the full extent of horizontal transfer comes to light, biologists are beginning to suggest that we cannot mobilize these vectors of communication without provoking and even accelerating the emergence of all kinds of counterresistance.2 Emergence Re-emerging The microbiologist René Dubos was the first to coin the term ‘emergence’ as a way of describing the temporality of biological evolution. By ‘emergence’, he understood not the gradual accumulation of local mutations, but the relentless, sometimes catastrophic upheaval of entire co-evolving ecologies; sudden field transitions that could never be predicted in linear terms from a single mutation (Dubos, 1987 [1959]: 33). Writing at a time when the ‘health transition’ was official public health doctrine, Dubos dismisses the idea that infectious disease could ever be eliminated, let alone stabilized. There can be no final equilibrium in the battle against germs, he argues, because there is no assignable limit to the co-evolution of resistance and counter-proliferation, emergence and counter-emergence. In Dubos’s work, the concept of microbial ‘resistance’ is divested of its association with the pathological: resistance is merely another word for emergence, and there is no end to it; its future evolution is unforeseeable from within the present. **Dubos** is scathing in his criticism of the strategic vision of mid- 20th-century public health, but what he **offers** in response is **not so much a pacifist manifesto, as an alternative vision of warfare and a counterphilosophy of disease**. If we are at war, Dubos contends, it is against an enemy that cannot be sequestered; a threat that is not containable within the boundaries of species life; is both inside and out; necessary for our survival yet prone to turn against us; and **capable of reinventing itself in response to our ‘cures’.** Dubos’s theatre of war presupposes a co-implication of human, bacterial and viral existence; a mutual immersion in the conditions of each other’s evolution. It is inevitable – he argues – that our most violent efforts to secure ourselves against contagion will be met with counter-resistances of all kinds. Microbial life will ‘strike back’ and yet we can never be sure when and how it will happen: ‘at some unpredictable time and in some unforeseeable manner nature will strike back’ (1987: 267). If we are to follow Dubos, **the relentless nature of coevolving emergence irresistibly engages us, despite ourselves, in a form of permanent warfare, a guerrilla counter-resistance without foreseeable end, against a threat whose precise ‘when’ and ‘how’ we can only speculate on**. Such an elusive vision of warfare might seem to preclude any effective strategic response – but Dubos is precisely interested in elaborating a philosophy of war which would be up to the challenge. If humans are to survive the inevitable ‘counter-strike’ from microbial life, he argues, we need to prepare for the unexpected; learn to counter the unknowable, the virtual, the emergent. **The new science of life,** he writes, **must cultivate an ‘alertness to the advent of the unpredictable’; a responsiveness to the threat that is merely felt or apprehende**d (1987: 271). We must become capable, in other words, of responding to the emergent, long before it has actualized in a form we can locate or even recognize**. Life is** a gamble, Dubos contends – a kind of **speculative warfare** (1987: 267). And **war, in this view, is necessarily preemptive**, as much an attempt to resist the counter-contagion as a creative reinvention of the conditions of human existence, beyond whatever actual limits we might have adapted to in the present. At the time he was writing – the 1950s – Dubos could not have been more at odds with the reigning public health orthodoxy. Three decades later, however, his counter-philosophy of disease seems to have been taken up into the mainstream of microbiology. The continuing evolution of infectious disease is inevitable, microbiologists now tell us. There can be no final conquest of infectious disease, although nothing will allow us to predict when and where the next pandemic will emerge: It is unrealistic to expect that humankind will win a complete victory over the multitude of existing microbial diseases, or over those that will emerge in the future. . . . Although it is impossible to predict their individual emergence in time and place, we can be confident that new microbial diseases will emerge. (Lederberg et al., 1992: 32) The new public health discourse calls our attention to emerging and reemerging infectious disease; old pathogens that have resurfaced in new, more virulent or resistant forms; existing pathogens that have infected humans for the first time; or entirely new creations. It defines infectious disease as emerging and emergent – not incidentally, but in essence. **What public health policy needs to mobilize against, the new microbiology argues, is no longer the singular disease with its specific aetiology, but emergence itself, whatever form it takes, whenever and wherever it happens to actualize** (Lederberg et al., 1992: 84). More ambiguously, the **new discourse on emerging infectious disease seems also to have struck a chord with US foreign policy** and international relations theorists, who over the same period were busy at work enumerating the new and ‘emerging threats’ that would define the post-Cold War era of warfare. **Under the banner of the new intelligence agenda,** certain **defence theorists** (often with the uncritical support of **NGOs** and **humanitarian organizations**) were **argu**ing that **the scope of security should be extended beyond the conventional military sphere to include life itself** (Johnson and Snyder, 2001: 215–18). What was at issue here was first of all the securitization of human life (hence the altogether strange concept of humanitarian warfare); but increasingly **US defence discourse is wanting to push further and incorporate the whole of life, from the micro- to the ecosystemic level, within its strategic vision.** One of the most prominent advocates of the concept of microbiological security has long claimed that ‘**emerging infectious disease . . . poses a clear threat to national security’** and that US defence should develop a common strategy for confronting both emerging and drugresistant disease and bioterrorism (Chyba, 1998: 5). And in case this might seem to represent an extreme position, it is worth noting that in the year 2000, a CIA report classified emerging ‘global infectious disease’ as a nonconventional security threat comparable to the new terrorism (National Intelligence Council [NIC], 2000), while in 2002, US Congress passed a Bioterrorism Act outlining the same emergency response procedures for bioterrorist attacks and emerging infectious disease (US Congress, 2002). More recently, the Pentagon has published a report exhorting the US government not only to wake up to the impending threat of climate change (assumed now to be closely related to the resurgence of infectious disease) but to treat it as a national security threat (Schwartz and Randall, 2003). **The future evolution of life**, it warned, **would be defined by permanent warfare.**

#### **Regulating intellectual property participates in a scarcity logic that re-affirms a broader market ownership over information – that consolidates neoliberal control through a shift to private protections, even if the individual act of the aff is good**

Soderberg 1 [Johan, BA from Falmouth College of the Arts. “Copyleft vs Copyright: A Marxist Critique” https://firstmonday.org/article/view/938/860]

"The contradiction that lies at the heart of the political economy of intellectual property is between the low to non-existent marginal cost of reproduction of knowledge and its treatment as scarce property" [23].

This contradiction [24], May demonstrates, is concealed by information capitalists whose interests are best served if ideas are treated as analogous to scarce, material property [25]. The privatisation of cultural expressions corresponds to the enclosure of public land in the fifteenth to eighteenth century.

As then, the new enclosure is concerned with creating conditions for excludability. Lawrence Lessig lists four methods to direct the behaviour of the individual to comply with property regulation: social norms, markets, architecture (including technology and code), and law. "Constraints work together, though they function differently and the effect of each is distinct. Norms constrain through the stigma that a community imposes; markets constrain through the price that they extract; architectures constrain through the physical burdens they impose; and law constrains through the punishment it threatens" [26].

Several new national laws have been passed in recent years on intellectual property rights. In the U.S. the Digital Millennium Copyright Act was passed in 1998 and has been imitated by legislation in Europe. The European Patent Office circumvented scheduled political decisions to be taken by European governments, and decreed a regulation that authorises patent claims to computer programmes [27]. These national laws were implemented under the direction of what is known as the Uruguay Round agreements [28], established by the World Trade Organisation (WTO). As a part of the bargain came the treaty of Trade Related Intellectual Property (TRIP), and its importance lies in two respects: "as an extension of the rights accorded to the owners of intellectual property and as part of the extension of a property-based market liberalism into new areas of social interaction, previously outside market relations" [29]. Simply by coordinating national regulations on a global level the net of intellectual property is tightened. TRIP was backed by American and European pharmacy companies and entertainment industries, and unsuccessfully opposed by the developing nations and northern civil society.

Despite the rigged debate on intellectual property in the mainstream media [30], the rhetoric of 'piracy' has not transformed social norms to any greater extent. The failure to curb copying is linked with the low costs and low risks for individuals to copy, i.e. the non-existent constriction of the market. However, Bettig remarks "The initial period following the introduction of a new communications medium often involves a temporary loss of control by copyright owners over the use of their property" [31].

Similarly, Lessig warns against the false reliance, common among hackers, that information technology is inherently anarchistic. The industry is determined to re-design hardware and software to command compliance with the intellectual property regime. "Code can, and will, displace law as the primary defence of intellectual property in cyberspace" [32]. It is predominantly this struggle that I now will attend to.

#### Capitalism is quickly reaching its ecological, structural, and psychological limits and causes near-term extinction – laundry list.

Robinson 16 (William, Professor of sociology, global studies and Latin American studies at the University of California at Santa Barbara. His most recent book is Global Capitalism and the Crisis of Humanity. | “Sadistic Capitalism: Six Urgent Matters for Humanity in Global Crisis” in *Truth-out*, April 12, 2016. <http://www.truth-out.org/opinion/item/35596-sadistic-capitalism-six-urgent-matters-for-humanity-in-global-crisis> )//tbrooks

The "luxury shanty town" in South Africa is a fitting metaphor for global capitalism as a whole. Faced with a stagnant global economy, elites have managed to turn war, structural violence and inequality into opportunities for capital, pleasure and entertainment. It is hard not to conclude that unchecked capitalism has become what I term "sadistic capitalism," in which the suffering and deprivation generated by capitalism become a source of aesthetic pleasure, leisure and entertainment for others. I recently had the opportunity to travel through several countries in Latin America, the Middle East, North Africa, East Asia and throughout North America. I was on sabbatical to research what the global crisis looks like on the ground around the world. Everywhere I went, social polarization and political tensions have reached explosive dimensions. Where is the crisis headed, what are the possible outcomes and what does it tell us about global capitalism and resistance? This crisis is not like earlier structural crises of world capitalism, such as in the 1930s or 1970s. This one is fast becoming systemic. The crisis of humanity shares aspects of earlier structural crises of world capitalism, but there are six novel, interrelated dimensions to the current moment that I highlight here, in broad strokes, as the "big picture" context in which countries and peoples around the world are experiencing a descent into chaos and uncertainty. 1) The level of global social polarization and inequality is unprecedented in the face of out-of-control, over-accumulated capital. In January 2016, the development agency Oxfam [published a follow-up](https://www.oxfam.org/en/pressroom/pressreleases/2016-01-18/62-people-own-same-half-world-reveals-oxfam-davos-report) to its report on global inequality that had been released the previous year. According to the new report, now just 62 billionaires -- down from 80 identified by the agency in its January 2015 report -- control as much wealth as one half of the world's population, and the top 1% owns more wealth than the other 99% combined. Beyond the transnational capitalist class and the upper echelons of the global power bloc, the richest 20 percent of humanity owns some 95 percent of the world's wealth, while the bottom 80 percent has to make do with just 5 percent. This 20-80 divide of global society into haves and the have-nots is the new global social apartheid. It is evident not just between rich and poor countries, but within each country, North and South, with the rise of new affluent high-consumption sectors alongside the downward mobility, "precariatization," destabilization and expulsion of majorities. Escalating inequalities fuel capitalism's chronic problem of over-accumulation: The transnational capitalist class cannot find productive outlets to unload the enormous amounts of surplus it has accumulated, leading to stagnation in the world economy. The signs of an impending depression are everywhere. The front page of the February 20 issue of The Economist read, "[The World Economy: Out of Ammo?](http://www.economist.com/news/leaders/21693204-central-bankers-are-running-down-their-arsenal-other-options-exist-stimulate)" Extreme levels of social polarization present a challenge to dominant groups. They strive to purchase the loyalty of that 20 percent, while at the same time dividing the 80 percent, co-opting some into a hegemonic bloc and repressing the rest. Alongside the spread of frightening new systems of social control and repression is heightened dissemination through the culture industries and corporate marketing strategies that depoliticize through consumerist fantasies and the manipulation of desire. As "Trumpism" in the United States so well illustrates, another strategy of co-optation is the manipulation of fear and insecurity among the downwardly mobile so that social anxiety is channeled toward scapegoated communities. This psychosocial mechanism of displacing mass anxieties is not new, but it appears to be increasing around the world in the face of the structural destabilization of capitalist globalization. Scapegoated communities are under siege, such as the Rohingya in Myanmar, the Muslim minority in India, the Kurds in Turkey, southern African immigrants in South Africa, and Syrian and Iraqi refugees and other immigrants in Europe. As with its 20th century predecessor, 21st century fascism hinges on such manipulation of social anxiety at a time of acute capitalist crisis. Extreme inequality requires extreme violence and repression that lend to projects of 21st century fascism. 2) The system is fast reaching the ecological limits to its reproduction. We have reached several tipping points in what environmental scientists refer to as nine crucial "planetary boundaries." [We have already exceeded these boundaries in three areas](http://www.amazon.com/Ecological-Rift-Capitalisms-War-Earth/dp/1583672184/ref=sr_1_1?ie=UTF8&qid=1460153228&sr=8-1&keywords=the+ecological+rift) -- climate change, the nitrogen cycle and diversity loss. There have been five previous mass extinctions in earth's history. While all these were due to natural causes, for the first time ever, human conduct is intersecting with and fundamentally altering the earth system. We have entered what Paul Crutzen, the Dutch environmental scientist and Nobel Prize winner, termed the Anthropocene -- a new age in which humans have transformed up to half of the world's surface. We are altering the composition of the atmosphere and acidifying the oceans at a rate that undermines the conditions for life. The ecological dimensions of global crisis cannot be understated. "We are deciding, without quite meaning to, which evolutionary pathways will remain open and which will forever be closed," observes Elizabeth Kolbert in her best seller, [The Sixth Extinction](http://www.amazon.com/Sixth-Extinction-Unnatural-History/dp/1250062187/ref=sr_1_1?s=books&ie=UTF8&qid=1457393458&sr=1-1&keywords=the+sixth+extinction). "No other creature has ever managed this ... The Sixth Extinction will continue to determine the course of life long after everything people have written and painted and built has been ground into dust." [Capitalism cannot be held solely responsible](http://www.amazon.com/Collapse-Societies-Choose-Succeed-Revised/dp/0143117009/ref=sr_1_1?ie=UTF8&qid=1460153265&sr=8-1&keywords=collapse+book). The human-nature contradiction has deep roots in civilization itself. The ancient Sumerian empires, for example, collapsed after the population over-salinated their crop soil. The Mayan city-state network collapsed about AD 900 due to deforestation. And the former Soviet Union wrecked havoc on the environment. However, given capital's implacable impulse to accumulate profit and its accelerated commodification of nature, it is difficult to imagine that the environmental catastrophe can be resolved within the capitalist system. "Green capitalism" appears as an oxymoron, as sadistic capitalism's attempt to turn the ecological crisis into a profit-making opportunity, along with the conversion of poverty into a tourist attraction. 3) The sheer magnitude of the means of violence is unprecedented, as is the concentrated control over the means of global communications and the production and circulation of knowledge, symbols and images. We have seen the spread of frightening new systems of social control and repression that have brought us into the panoptical surveillance society and the age of thought control. This real-life Orwellian world is in a sense more perturbing than that described by George Orwell in his iconic novel 1984. In that fictional world, people were compelled to give their obedience to the state ("Big Brother") in exchange for a quiet existence with guarantees of employment, housing and other social necessities. Now, however, the corporate and political powers that be force obedience even as the means of survival are denied to the vast majority. Global apartheid involves the creation of "green zones" that are cordoned off in each locale around the world where elites are insulated through new systems of spatial reorganization, social control and policing. "Green zone" refers to the nearly impenetrable area in central Baghdad that US occupation forces established in the wake of the 2003 invasion of Iraq. The command center of the occupation and select Iraqi elite inside that green zone were protected from the violence and chaos that engulfed the country. Urban areas around the world are now green zoned through gentrification, gated communities, surveillance systems, and state and private violence. Inside the world's green zones, privileged strata avail themselves of privatized social services, consumption and entertainment. They can work and communicate through internet and satellite sealed off under the protection of armies of soldiers, police and private security forces. Green zoning takes on distinct forms in each locality. In Palestine, I witnessed such zoning in the form of Israeli military checkpoints, Jewish settler-only roads and the apartheid wall. In Mexico City, the most exclusive residential areas in the upscale Santa Fe District are accessible only by helicopter and private gated roads. In Johannesburg, a surreal drive through the exclusive Sandton City area reveals rows of mansions that appear as military compounds, with private armed towers and electrical and barbed-wire fences. In Cairo, I toured satellite cities ringing the impoverished center and inner suburbs where the country's elite could live out their aspirations and fantasies. They sport gated residential complexes with spotless green lawns, private leisure and shopping centers and English-language international schools under the protection of military checkpoints and private security police. In other cities, green zoning is subtler but no less effective. In Los Angeles, where I live, the freeway system now has an express lane reserved for those that can pay an exorbitant toll. On this lane, the privileged speed by, while the rest remain one lane over, stuck in the city's notorious bumper-to-bumper traffic -- or even worse, in notoriously underfunded and underdeveloped public transportation, where it may take half a day to get to and from work. There is no barrier separating this express lane from the others. However, a near-invisible closed surveillance system monitors every movement. If a vehicle without authorization shifts into the exclusive lane, it is instantly recorded by this surveillance system and a heavy fine is imposed on the driver, under threat of impoundment, while freeway police patrols are ubiquitous. Outside of the global green zones, warfare and police containment have become normalized and sanitized for those not directly at the receiving end of armed aggression. "Militainment" -- portraying and even glamorizing war and violence as entertaining spectacles through Hollywood films and television police shows, computer games and corporate "news" channels -- may be the epitome of sadistic capitalism. It desensitizes, bringing about complacency and indifference. In between the green zones and outright warfare are prison industrial complexes, immigrant and refugee repression and control systems, the criminalization of outcast communities and capitalist schooling. The omnipresent media and cultural apparatuses of the corporate economy, in particular, aim to colonize the mind -- to undermine the ability to think critically and outside the dominant worldview. A neofascist culture emerges through militarism, extreme masculinization, racism and racist mobilizations against scapegoats. 4) We are reaching limits to the extensive expansion of capitalism. Capitalism is like riding a bicycle: When you stop pedaling the bicycle, you fall over. If the capitalist system stops expanding outward, it enters crisis and faces collapse. In each earlier structural crisis, the system went through a new round of extensive expansion -- from waves of colonial conquest in earlier centuries, to the integration in the late 20th and early 21st centuries of the former socialist countries, China, India and other areas that had been marginally outside the system. There are no longer any new territories to integrate into world capitalism. Meanwhile, the privatization of education, health care, utilities, basic services and public land are turning those spaces in global society that were outside of capital's control into "spaces of capital." Even poverty has been turned into a commodity. What is there left to commodify? Where can the system now expand? With the limits to expansion comes a turn toward militarized accumulation -- making wars of endless destruction and reconstruction and expanding the militarization of social and political institutions so as to continue to generate new opportunities for accumulation in the face of stagnation. 5) There is the rise of a vast surplus population inhabiting a "planet of slums," alienated from the productive economy, thrown into the margins and subject to these sophisticated systems of social control and destruction. Global capitalism has no direct use for surplus humanity. But indirectly, it holds wages down everywhere and makes new systems of 21st century slavery possible. These systems include prison labor, the forced recruitment of miners at gunpoint by warlords contracted by global corporations to dig up valuable minerals in the Congo, sweatshops and exploited immigrant communities (including the rising tide of immigrant female caregivers for affluent populations). Furthermore, the global working class is experiencing accelerated "precariatization." The "new precariat" refers to the proletariat that faces capital under today's unstable and precarious labor relations -- informalization, casualization, part-time, temp, immigrant and contract labor. As communities are uprooted everywhere, there is a rising reserve army of immigrant labor. The global working class is becoming divided into citizen and immigrant workers. The latter are particularly attractive to transnational capital, as the lack of citizenship rights makes them particularly vulnerable, and therefore, exploitable. The challenge for dominant groups is how to contain the real and potential rebellion of surplus humanity, the immigrant workforce and the precariat. How can they contain the explosive contradictions of this system? The 21st century megacities become the battlegrounds between mass resistance movements and the new systems of mass repression. Some populations in these cities (and also in abandoned countryside) are at risk of genocide, such as those in Gaza, zones in Somalia and Congo, and swaths of Iraq and Syria. 6) There is a disjuncture between a globalizing economy and a nation-state-based system of political authority. Transnational state apparatuses are incipient and do not wield enough power and authority to organize and stabilize the system, much less to impose regulations on runaway transnational capital. In the wake of the 2008 financial collapse, for instance, the governments of the G-8 and G-20 were unable to impose transnational regulation on the global financial system, despite a series of emergency summits to discuss such regulation.

#### neoliberalism turns politics into the technical management of risk, eliminating democracy and freedom, and inaugurating the ethical dilemma of the 21st century – a restless market subject fated to endless work, burnout and exhaustion that leads to new types of extension of the system in forms of colonialism and exploitation. Value to life outweighs

**Featherstone 17.** Mark, Senior Lecturer in Sociology at Keele University. “Planet Utopia: Utopia, Dystopia, and Globalisation.” Series: Routledge studies in social and political thought. February 17, 2017.

In seeking to think through the implications of this shift, I explore the ways in which neoliberal thought conceives of economy, and by extension society, politics, and culture, in terms of techno-scientific machines complete with cybernetic minds and bodies that respond to stimulus in more or less rational ways. Here, I suggest that the shift from the Austrians to the Americans represents an important moment, because where Popper (2002a, b), Mises (2007), Menger (2009), and Hayek (2012) imagined a rational economy, society, and political system through the image of spontaneous order, it was the Americans, and specifically the Friedman-era Chicago School, that transformed economics, economy, and as consequence society into mathematics and mathematical objects. Under these conditions the role of politics becomes about technical management of the cybernetic system, with the result that democratic participation in consideration of decisions around fundamental goods starts to take a back seat and freedom moves towards the space of the private sphere of individuals who express their self through their consumption choices and the development of a kind of doomed market subjectivity. The reason this new market subjectivity becomes an ethical problem, perhaps the ethical problem of the 21st century, is because the mode of individualism, which is never complete but always desperately in search of completion through the symbolic systems of the market, is fated to a life of endless work, terminal consumerism, and eventual burnout and exhaustion. This form of subjectivity, which Dardot and Laval (2014) call ultra-subjectivity, is therefore always late, in the sense that it is doomed before it has even begun, and represents the dystopic counterpoint to the neoliberal capitalist utopia that relies on ultra-subjectivity to maintain its hyped-up form of dynamic equilibrium. The real affront of the neoliberal utopia is, therefore, that it lives off the imposition of a dystopic form of subjectivity defined by the progressive destruction of mind and body and hides this behind its techno-scientific computational aesthetic that suggests objectivity, neutrality, and the impossibility of alternatives.

What is more is that the prospects of salvation are not good for the ultra-subject because what characterises neoliberal capitalism as late capitalism is the problem of growth, vitality, and dynamism, which was sustained by world war and recovery from world war across most of the 20th century, but today is exhausted by ecological finitude and technological limitation. Under these conditions, growth and the maintenance of the dynamism of the neoliberal utopia will only come from the modernisation of the south, which produces new limits in the form of ecological destruction, the progressive mechanisation of the worker in the cybernetic economy where every aspect of life becomes a site of possible value, and the increasing virtualisation of the economy that further condemns human subjectivity to marginality, meaninglessness, and transformation into waste. Following the elaboration of this thesis through reference to Dardot and Laval’s (2014) work, I turn to the issue of the progressive objectification of value and the virtualisation of capitalism in the form of the stock market, which is the topic of Chapter 4. Here, I consider the translation of economy from a sphere of thought through the philosophical image of the invisible hand in the laissez-faire, liberal, political economics from the 18th century to the early 20th century to the mathematical, computational conception of a cybernetic networked order in the neoliberalism of Friedman (2002) and the Chicago School from the 1950s onwards, in order to advance a theory of the capitalist utopia realised in a kind of techno-scientific sublime. In other words, the invisible hand, or spontaneous order, is no longer simply a metaphor, but rather a computational matrix realised across the global network in the neoliberalism of Friedman and the Chicago School that captured the world powers and major global institutions and subsequently transformed the sphere of international relations into a space of economic contestation and competition.

In order to try to capture this vision of the globalisation of the really existing neoliberal late capitalist utopia, I conclude the chapter with an exploration of the ways in which utopian order and dystopian disorder play out in conceptualisations of stock market trading, which shifts from a space of American frontierism, speculation, and high risk in the 19th century to a supposed closed universe of riskless risk in the late 20th century and early 21st century when the practice of securitisation led to the ultimate capitalist utopian vision—the economic, mathematical absolute where it is possible to hedge against the inevitable fluctuations in price and as a result escape the vicissitudes of time and the future itself. While this vision of the cancelled or what I want to call the strike-through future (future)—because this kind of utopianism paradoxically recalls the sci-fi fantasy of a high-tech world far off in the future—represents the utopian idea par excellence, since it is spatially contained by virtue of its global reach and temporally limited through techniques that make it possible to hedge against the radical uncertainty of the future, it is also reflective of a dystopian nightmare because the kind of dynamic equilibrium it suggests represents the opposite of what Bataille (1991) and Mauss (2000) wrote about in their theories of the cosmological primitive economy. Where they made generosity, the limited needs of humanity, and, in Mauss at least, redistribution the condition of an economy of excess, the late capitalist, neo-liberal utopia disappears or vanishes humanity and the human body beneath a cybernetic dystopia, which is comparable to the kind of totalitarianism found under Stalin and Mao, with the only difference being that the Soviet and Chinese communists destroyed humanity through politics, while the neoliberal utopians suggest that the market decides, and imagine that this somehow makes the destruction of body and mind by the objective violence of the technoscientific economy more bearable.

Of course from the point of view of the starved body and ruined mind, it makes no real difference, and offers no real compensation or comfort, to say that its executioner is sat behind a console in a London investment bank. This is no better, or somehow more defensible, than to look for the architect of monstrous violence behind a desk in CCP headquarters in Beijing. This difference makes no difference, which is precisely why the Chinese communists have found the transformation from communism to capitalism so very easy to make. Although this thesis suggests a hopeless, post-political future, where late capitalist utopianism transcends divisions between left and right, and even unites American Friedmanites and Chinese post-Maoist marketeers, it is the very completion and realisation of this cybernetic utopian machine that opens up a space to consider its potential dialectical negativity. This was revealed in 2008, when it became clear that the overconfidence, and utopian hubris, of the market fundamentalists who imagined the condition of riskless risk was their greatest enemy. At the same time that this hubris threatens to undermine the late capitalist utopia in power, and has today led to discussion of zombie politics and zombie economics, resistance to the neoliberal utopians who remain in love with their system post-mortem will require the imagination of a new utopia, or fundamental good, which should emerge from the very human condition neoliberalism ignores. The human body that suffers may very well become the new utopian figure of the 21st century which will enable the construction of a new ethics to oppose the post-human, cybernetic, utopia of capitalism. Finally, and in order to think through the possibility of the emergence of the critical space necessary to articulate this vision, in the conclusion of the chapter I set up a consideration of theories of market turbulence, including Benoit Mandelbrot’s (2004) theory of the inherent wildness of markets, in order to, first, comment on the crash of 2008, and second, show how the impossible durability of the capitalist utopia may well be threatened by its neoliberal, ultra-rational formulation. Here, I open a space to consider Quentin Meillassoux’s (2009, 2015) work on the limitations of the idea of finitude in order to show how the inherent hyper-chaos of markets opens a space for potential utopian change which is necessary because of the ways in which the hyper-rationality of the late capitalist mathematical utopia violates and humiliates the human body in pursuit of value. In this respect, I move into the discussion of financialisation, the stock market, and the potential collapse of the mathematical sublime in Chapter 4.

#### Debate that can mobilize students are crucial to galvanize movements – otherwise extinction, endless war, and oppression are inevitable – it filters the permutation and turns skills arguments

SW 13, (no, not Mimi and Wimsatt, this is Socialist Worker, The inconvenient truth about greenwashing, <https://socialistworker.org/2013/09/24/the-truth-about-greenwashing?quicktabs_sw-recent-articles=6-27>)

\*\*\*Read Blue if No 1AC Warming Impact

TO RAISE these difficulties and different political outlooks within the environmental movement is not to be "divisive" or to "weaken" the movement, as is so often the charge from those trying to close down political discussion. Rather, it is absolutely essential if we are to move forward in these desperate times. As such, there is a level of importance to the debate that should encourage everyone concerned with the future of our planet to consider, analyze and discuss, because it relates directly to the future of the movement. And as building a successful, mass, independent movement and democratic, militant organization for social and ecological justice is the only thing that will prevent runaway climate change and mass extinctions that call into question the future of human civilization, it is critical that activists engage with the blossoming, much needed and very healthy debate on strategy and tactics. The debate has erupted across environmental blogs and websites once more because, just as the environmental justice movement originally emerged from activists and communities of color 30 years ago, a more radical wing of the movement is growing, becoming more assertive, asking new questions and seeking to overcome previous political weaknesses and omissions. The new questions are not just about how to marshal our forces to win individual battles, but how to string those victories together into a campaign that has an identifiable objective and grand vision. Strategically speaking, over the large scale and longer term, what kind of society are we fighting for? Are we seeking merely to sand off some of the ever-expanding, rougher edges of capitalism, while keeping the system somewhat contained and at least a few small areas sacrosanct from the profit motive? Or are we fighting for a completely different kind of world? One free of commodities, fast food, agribusiness, carbon markets, warfare over key resources, poverty, racism and sexism--and for a truly objective science and technology that is no longer twisted and disfigured by the priorities of financial accumulation. How can we both fight for meaningful change right now (tactics) that simultaneously helps build the movement and brings us closer to our larger, more long-term goals (strategy)? How do we differentiate between effective tactics that supplement our overall strategy, versus those that lead us up blind alleys? How one answers these political questions determines how and with whom one organizes. In reality, this is a very old debate and surfaces whenever a social movement reaches an impasse. The question of strategy and tactics grows out of the concrete situation which confronts new activists drawn into the struggle. Very often, it results in the emergence of new organizations which are more responsive to the increased demands and broader world views of those newly radicalized participants, such as we are beginning to see with the formation of national groups such as 350.org, Rising Tide, the left-wing coalition System Change not Climate Change and, most importantly, the newly emerging indigenous organization Idle No More. Such was the case in the civil rights movement, as newer, young activists, desirous of swifter and more thoroughgoing change, became disillusioned with the go-slow and legalistic route pursued by venerable civil rights organizations such as the NAACP (despite its radical roots). They agitated and formed organizations that were independent and open to new tactics with larger goals. Instead of an emphasis on experts, lobbying, moral suasion and lawsuits in the courts, tactics were redirected toward mobilizing the Black population as a whole--through mass, nonviolent, direct action, set within a strategy of escalating activism and involvement from wider and wider layers of society.

#### The alternative is to engage in anticapitalism, an act of radical resistance grounded in grassroots movements. Anticapitalism does not represent an unattainable utopia but challenges common myths about capitalism as a whole.

Rogers 14 (Chris Rogers, author, *Capitalism and Its Alternatives: A Critical Introduction*, Zed Books, 2014. ProQuest Ebook Central, <https://ebookcentral-proquest-com.proxy.lib.umich.edu/lib/umichigan/detail.action?docID=1758713>.) AM

*A note on terminology* The book will draw on four core concepts. The first of these is capitalism. The term capitalism is used throughout the book to refer to the prevailing form of social organization. While acknowledging that the ways in which capitalism operates and the implications of these operations are contested, this book defines capital­ ism in terms of one commonly accepted distinguishing feature: that capitalism is a system that organizes the production, distribution and exchange of goods, on the basis of private property, with a view to realizing profit and therefore increasing wealth. The second term is alternative capitalism, which is used to describe a system where the capitalistic relationship between state and market is re-regulated, but not fundamentally reformed, in order to try to produce optimal social and economic outcomes. The aim of an alternative capitalism is to maximize wealth and profit by introducing a different structure of rules to govern capitalism. The third concept is that of an alternative to capitalism. An alternative to capitalism is distinct from capitalism because it places an emphasis on social and civic goals, rather than purely focusing on pecuniary gain. In contrast to capitalism, an alternative to capitalism is founded on collective or community property rights, rather than individual property rights, although the form and extent of collective or community property rights may vary. Where the book is referring to either an alternative capitalism or an alternative to capitalism, it uses the form ‘alternative (to) capitalism’. The final concept the book uses is anti-capitalism. It uses the term anti-capitalism to refer to the act of resisting capitalism, whether this occurs by attempting to influence the state, taking control of the state, or actions taken independently or outside of the state. An individual who pursues or wishes to pursue an alternative to capitalism can therefore be described as an anti-capitalist.

Traditions of Resistance   
In its consideration of capitalism and its alternatives, this book accepts that it is possible to perceive capitalism and its con­ sequences in different ways. Furthermore, it acknowledges that the way in which capitalism and its consequences are perceived will have a fundamental impact on whether people deem capitalism to be desirable, whether they would prefer an alternative capitalism or an alternative to capitalism, and therefore whether they believe that it is important and worthwhile engaging in resistance to capitalism through the social act of anti-capitalism. However, the central argument of this book is that **capitalism displays intrinsic tendencies towards crisis that make an alternative to capitalism desirable, and so justifies anti-capitalist action**. In doing so, it argues that capitalism is a product of social interaction between people, and that it is remade or resisted through our social action. This ­emphasis on social constitution challenges common assertions about the inevitability of capitalist logic, and in the process shows that the prospect of realizing an alternative to capitalism is more than wishful thinking. In its discussions of alternatives to capitalism, however, this book guards against thinking of alternative forms of social organization as outcomes or utopias. Rather, it shows how various forms of alternative social and economic organization have shown a tendency to degenerate over time, or to reproduce injustices of capitalist social relations. It therefore suggests that **alternatives to capitalism should be thought of as processes that need to be continually made and remade if they are not to degenerate or reproduce the injustices of capitalist social relations, and if desirable outcomes are to be realized**. Reflecting the book’s emphasis on the social constitution of economy and society, it rejects ‘top-down’ attempts to impose an alternative to capitalism by political means, and argues that anticapitalist action should take a ‘bottom-up’ form, which requires democratic and pluralistic experimentation with different models of social and economic organization to expand the space in which non-capitalist activity takes place.

The arguments of the book therefore fit with a long tradition of anti-capitalist resistance. One of the most well-known instances of this kind of resistance was the insurrections of 1968, typified by the student revolts in Paris in May of that year. However, as Michael Watts (2001: 167) noted, the events of 1968 were far more than a local phenomenon; over seventy countries ‘had major student ­ actions during that year [and between] October 1967 and July 1968 there were over 2000 incidents worldwide of student protest alone’. Furthermore, it was not just students engaged in the act of protest, the act of anti-capitalism. According to Watts’ (ibid.: 167) study, ‘if one were to add the related worker and other nonstudent demonstrations each country in the world would, on average, have had over 20 “incidents” over the nine-month period’. Nor was the substance of the protest uniform; 1968 had what Watts (ibid.: 171– 2) has described as its Eastern, Western and Southern moments. In the first, typified by the Prague Spring and the Cultural Revolution in China, the focus of protests was anti-bureaucratic, and directed against the ‘Old Left’ and the corruption people perceived in it. In the second, typified by student protests in Paris and Berkeley, the focus of protests was opposition to consumerism and the pursuit of civil and social rights. In the third, the focus was the rejection of authority in the first generation of independent states in Africa and Latin America, where military dictatorship had displaced democratic rule.

Luc Boltanski (2002: 6) also highlights the diversity of the 1968 movement by distinguishing between its social and artistic critiques, where the former focused on inequality and poverty stemming from capitalism, and the latter on liberation, individual autonomy and authenticity. Michael Löwy (2002: 95) links this distinction between the social and artistic critique of capitalism to romanticism, which he defines as ‘rebellion against modern capitalist society, in the name of past or premodern social and cultural values, as a protest against the modern disenchantment of the world’. Therefore, the significance of 1968 can be seen not just across space, but also as a reflection of long-established traditions of resistance to prevailing social, political and economic forms or organization. On such readings, the events of 1968 can be interpreted as a demonstration of long-standing anti-capitalist feeling that rested on a critique of the world we live in and the injustices it creates, and in turn motivated action in order to try to address them.

## Case

### 1NC – Turn

#### Prices are falling now – the surge is over

Watts & Saefong 9/17/21 [By Myra P. Saefong Follow and William Watts at MarketWatch. "Oil prices decline, but post a 4th straight weekly gain." https://www.marketwatch.com/story/oil-prices-edge-lower-but-on-track-for-weekly-rise-of-more-than-3-11631880088]

Oil futures declined on Friday, pulling back from seven-week highs as crude production in the Gulf of Mexico makes a slow comeback from Hurricane Ida, but U.S. and global benchmark crude prices scored solid weekly gains for a fourth week in a row.

“Crude oil production that was shut by Hurricane Ida continues to be restored, so refinery demand is being increasingly met from producers, trimming a bit the price premiums of previous days,” said Nishant Bhushan, oil markets analyst at Rystad Energy, in a daily note.

The hurricane news had removed the Organization of the Petroleum Exporting Countries from the market spotlight, but the group continues to “pump more oil as per their latest production agreement, and that is reflected in global supply, with prices taking notice,” said Bhushan.

Demand concerns have also climbed. Japan has already extended stricter lockdown measures in an attempt to suppress the further spread of COVID-19 and China also reported new outbreak of Covid-19 in the Fujian province, he said.

“Now, with supply strengthening and some possible dents to demand recovery in Asian markets, oil prices naturally cut the excess fat that the U.S hurricane season helped accumulate,” Bhushan said.

West Texas Intermediate crude for October delivery CL00, -2.05% CLV21, -2.03% fell 64 cents, or 0.9%, to settle at $71.97 a barrel on the New York Mercantile Exchange. November Brent crude BRN00, -1.58% BRNX21, -1.54%, the global benchmark, declined by 33 cents, or 0.4%, at $75.34 a barrel on ICE Futures Europe.

#### Middle East war is good—it raises oil prices

Lynch 18 [Michael Lynch spent nearly 30 years at MIT as a student and then researcher at the Energy Laboratory and Center for International Studies. He then spent several years at what is now IHS Global Insight and was chief energy economist. Currently, Lynch serves as the president of Strategic Energy and Economic Research, Inc., and lectures MBA students at Vienna University. He’s been president of the US Association for Energy Economics and serves on the editorial boards of three publications. Will Oil Prices Blow Up With The Middle East? April 12, 2018. https://www.forbes.com/sites/michaellynch/2018/04/12/will-the-oil-price-blow-up-with-the-middle-east/#166754c23d19]

It's said that a woman once approached 19th century German Chancellor Bismarck and asked him to explain the controversy over Schleswig-Holstein, to which Bismarck responded, “Madam, only three people have ever understood Schleswig-Holstein. One is dead, the second has gone mad, and I’m the third and I’ve quite forgot.” This summarizes how I feel about the current Middle East situation. The public rhetoric (including tweets) suggests that the U.S. and Russia are both willing to attack each other’s forces -- the U.S. is planning an attack on Syrian forces that might affect Russian personnel and Russia is apparently threatening to shoot down U.S. planes. This is obviously concerning, and while incidental Russia casualties might not lead to a direct military response, if Russia shot down a U.S. plane (as opposed to an unmanned missile), the U.S. would almost certainly respond. Given that the Russians know this, they are unlikely to take such a step. An additional factor is the possibility that Iranian forces in Syria would be hit by any U.S. attack, which might invite retaliation. Iran is unlikely to be able to attack U.S. forces in the Mediterranean directly, but forces in Iraq and Syria might be subject to ‘asymmetrical warfare,’ i.e., small-scale attacks, possibly including suicide bombers. The threat to oil markets come if Iranian actions encourage President Trump to refuse to recertify the Iranian nuclear agreement in mid-May. While many of Iran’s customers in Asia would not be concerned, there might be some drop in sales from companies fearful of U.S. legal action. Sanctions on financial transfers would also deter the more conventional customers, but the Iranians should be able to work around that after a brief pause. Could this also mean an escalation in the conflict between Iran and Saudi Arabia (or more broadly but less accurately, Shia versus Sunni regimes)? Given that the Saudis have been attacking Iranian-supported Houthis in Yemen without direct response by Iran for some time now, any Saudi actions in Syria seem unlikely to be a provocation that would worsen the situation in the Gulf. FDR’s comment that ‘we have nothing to fear but fear itself’ seems appropriate for oil traders. Bombs and missiles flying in the greater Middle East always creates a bullish impetus on prices, even if the oil fields remain distant from the actual violence. The death of Russian personnel would worsen this, as it implies a greater probability of retaliation and continuation of the conflict which, again, would push up oil prices. And naturally, should Iranian personnel be affected, there would be very rational concerns that they might respond with some sort of attack that could affect Gulf oil trade. The worst case scenarios -- ongoing U.S.-Russian combat or direct Saudi-Iranian fighting -- seem very unlikely to happen. But as long as the possibility exists, oil prices will remain elevated, with WTI perhaps hitting $70 or higher, and only coming down when it has become clear that the violence is diminishing and will not spread. Until then, expect a bumpy ride.

#### Lower oil revenue encourages Russia to intervene militarily which causes escalating crisis

Jaffe and Elass 16 [Amy Myers Jaffe and Jareer Elass, Columbia Journal of International Fails. War and the Oil Price Cycle. January 1, 2016. https://jia.sipa.columbia.edu/war-oil-price-cycle]

While low oil prices have forced Moscow to take draconian economic steps, so far it has not fundamentally produced the desired diplomatic capitulation. As predicted by Robert Blackwill and Meghan O’Sullivan, “… a weaker Russia will not necessarily mean a less challenging Russia…Russia could seek to secure its regional influence in more direct ways –even through the projection of military power.”48 Indeed, U.S. summer diplomatic efforts fizzled quickly by autumn, with Russia changing the facts on the ground through direct Russian military intervention. Russia’s motivations are multifold and certainly include protecting its substantial interests in Syria including its preferred outcome that maintains Syria as an Iranian bulwark against Sunni jihadists.49 Some analysts are suggesting that Moscow is overly optimistic about defeating Syrian opposition groups. Instead, it is suggested that Russia’s previous difficulties during its invasion of Afghanistan may prove instructive, with all Syrian opposition forces still focusing in earnest on the Assad camp, and saving energies against each other for a later day.50 However, it is still not clear as this article went to press whether Russia intends to satisfy the Saudis by participating in peace negotiations, or whether the Russian engagement on behalf of Assad is meant to hold Iran and Moscow in a position to use Syria to assert themselves against the kingdom and restore oil prices. While the outcome in Syria is uncertain, the Russian move clearly complicates the landscape in the region, and leaves open the possibility of escalating violence. Pavel Baev and Jeremy Shapiro of Brookings suggest Russia’s increased intervention may simply be designed to “establish a position of strength from which to bring Moscow back into the center of diplomacy over Syria,”51 but they are skeptical that Russia will be able to manage its participation in the conflict to reach a desired goal. Russia may also have broader goals, including intimidating U.S. allies both in the region and in Europe, to influence oil policy over the longer term, as well as to weaken strategic alliances that could be used against Russia, its national interests or the interests of individuals in the current regime. In recent years, Russia has acted to reassert itself on the world stage both through military means and by tapping energy as a weapon for leverage to enhance its geopolitical status.52

#### But, decline causes worse aggression – it’s NoKo 2.0

Fisher 14 [Max Fisher, Vox. The worse Russia's economy gets, the more dangerous Putin becomes. December 17, 2014. https://www.vox.com/2014/12/17/7401681/russia-putin-ruble]

You might reasonably conclude that the destruction of Russia's economy is great news for the United States of America. After all, won't it humble Vladimir Putin, forcing him to finally back out of his disastrous Ukraine invasion, soften his growing hostility toward Europe and the US, and generally ratchet down the brinksmanship and aggression that have made him so troublesome?

Actually, it's the opposite. The odds are that Russia's freefalling economy will make Putin even more aggressive, more unpredictable, and less willing to compromise. The weaker that Russia becomes, the more dangerous it will get, and that's terrible news for everyone, including the US.

It is precisely because the cratering economy is weakening Putin that it will force him to bolster his rule, which he will almost certainly do by drumming up nationalism, foreign confrontations, and state propaganda. Russia, already hostile and isolated, is likely to become even more so, worsening both its behavior abroad and the already-significant economic suffering of regular Russians. The country's propaganda bubble will further seal off Russians from the outside world, telling them that Russia's decline is the fault of Western aggression that they must rally against.

In all, this effect is starting to look something like the North Koreaification of Russia. That does not mean that Russia is about to become or will ever be as isolated, hostile, or aggressive as North Korea, but it only has to edge a little bit in that direction to bring terrible consequences for the world and for Russians themselves.

#### Only instability in the Middle East can prevent Russian economic implosion

Baev 15 (Pavel K. Baev is a Research Director and Professor at the Peace Research Institute, Oslo (PRIO). He is also a non-resident senior fellow at the Center for the United States and Europe (CUSE) at the Brookings Institutions, Washington DC, and a Senior Associate Fellow at the Institut Francais des Relations Internationales (IFRI), Paris. 24 April 2015. <https://www.opendemocracy.net/od-russia/pavel-k-baev/russia-is-spoiling-for-fight-in-middle-east>)

The first is the dramatic (and, for Russia, devastating) decline in oil prices, which has been caused by profound shifts in global energy markets. This trend might only be reversed rapidly by a further spike of instability in the Middle East, which would disrupt supplies coming from the Persian Gulf. The 30-40% price drop that occurred in the second half of 2014 happened while three major suppliers—Iraq, Iran, and Libya—were already performing far below capacity. It is reasonable to assume that a normalisation of production in any of them would push the benchmark price even lower. Russia may thus find it necessary to prevent progress in conflict resolution (and, hence, stabilisation in one or more of these three major producers). It could mean the difference between severe economic crisis and implosion.

#### They’ll use cyberattacks, which cause extinction

Perkovich 18 [George, Olivier and Nomellini chair and vice president for studies at the Carnegie Endowment for International Peace, “Really? We’re Gonna Nuke Russia for a Cyberattack?” 1/18, <https://www.politico.com/magazine/story/2018/01/18/donald-trump-russia-nuclear-cyberattack-216477>]

For three reasons, the Trump administration would be wise to reconsider and more carefully calibrate the circumstances under which it would initiate nuclear war. The first reason has to do with the fact that nuclear war would be much more devastating to the United States than would any conceivable cyberattack. Russia and China appear to be the most likely adversaries that in the near term might be able to use cyberweapons to disable significant segments of the U.S. electricity system. Indeed, Russian attackers already did so to Ukraine, in a December 2015 operation that shut down power for approximately 230,000 Ukrainians for up to six hours. That attack, Wired magazine reported last June, may have been a dress rehearsal for a future assault on the U.S. power grid. Now imagine it was much worse, and all of Ukraine was without electricity for weeks. If Ukraine possessed nuclear weapons, would any sane person in Washington have recommended that Ukrainian leaders retaliate by nuking Russia, and thereby inviting Russian nuclear attacks on Ukraine? The cure would have been much worse than the disease. The same strategic logic applies to the United States. A cyberattack on U.S. civilian infrastructure could be enormously disruptive and costly. Depending on the scale and durability of outages of electricity, piped water, etc., the effect could be like what Puerto Rico is experiencing due to Hurricane Maria (though without the collapsed roadways and buildings). But, if a U.S. president initiated nuclear war in response to a massive cyberattack*, Russia and China would be expected to retaliate with nuclear weapons.* This could leave the mainland U.S. in the condition of Puerto Rico *minus all the people, buildings and wildlife*. Russia and China would suffer gravely in the process, but the U.S. would lose much more than it would gain by moving from cyberwar to nuclear war. Here’s the second reason it’s crazy to retaliate with nuclear weapons: The United States’ conventional and cyber capabilities combined are greater than its adversaries’. Thus, the United States for decades has wanted to keep conflicts from going nuclear, where it would be harder if not impossible to “win.” The U.S. continues to develop and deploy its own cyber capabilities to disrupt adversaries’ civilian and dual-use infrastructure—energy, water, finance, etc. This helps deter adversaries from initiating cyberwarfare on a large scale, and, if deterrence fails, to enable *countervailing cyberattacks and perhaps conventional warfare*.

### NC – AT: ME War

#### Middle East war won’t go nuclear – balanced alliances, Chinese non-intervention, and cooperation prevent great power draw-in

Mead 14 – Walter Russell Mead, James Clarke Chace Professor of Foreign Affairs and Humanities at Bard College and Professor of American foreign policy at Yale University, Editor-at-Large of The American Interest magazine and a non-resident Scholar at the Hudson Institute, 2014 (“Have We Gone From a Post-War to a Pre-War World?” *Huffington Post*, July 7th, <http://www.huffingtonpost.com/walter-russell-mead/new-global-war_b_5562664.html>)

The Middle East today bears an ominous resemblance to the Balkans of that period. The contemporary Middle East has an unstable blend of ethnicities and religions uneasily coexisting within boundaries arbitrarily marked off by external empires. Ninety-five years after the French and the British first parceled out the lands of the fallen Ottoman caliphate, that arrangement is now coming to an end. Events in Iraq and Syria suggest that the Middle East could be in for carnage and upheaval as great as anything the Balkans saw. The great powers are losing the ability to hold their clients in check; the Middle East today is at least as explosive as the Balkan region was a century ago.

GERMANS THEN, CHINESE NOW

What blew the Archduke's murder up into a catastrophic world war, though, was not the tribal struggle in southeastern Europe. It took the hegemonic ambitions of the German Empire to turn a local conflict into a universal conflagration. Having eclipsed France as the dominant military power in Europe, Germany aimed to surpass Britain on the seas and to recast the emerging world order along lines that better suited it. Yet the rising power was also insecure, fearing that worried neighbors would gang up against it. In the crisis in the Balkans, Germany both felt a need to back its weak ally Austria and saw a chance to deal with its opponents on favorable terms.

Could something like that happen again? China today is both rising and turning to the sea in ways that Kaiser Wilhelm would understand. Like Germany in 1914, China has emerged in the last 30 years as a major economic power, and it has chosen to invest a growing share of its growing wealth in military spending.

But here the analogy begins to get complicated and even breaks down a bit. Neither China nor any Chinese ally is competing directly with the United States and its allies in the Middle East. China isn't (yet) taking a side in the Sunni-Shia dispute, and all it really wants in the Middle East is quiet; China wants that oil to flow as peacefully and cheaply as possible.

AMERICA HAS ALL THE ALLIES

And there's another difference: alliance systems. The Great Powers of 1914 were divided into two roughly equal military blocs: Austria, Germany, Italy and potentially the Ottoman Empire confronted Russia, France and potentially Britain.

Today the global U.S. alliance system has no rival or peer; while China, Russia and a handful of lesser powers are disengaged from, and in some cases even hostile to, the U.S. system, the military balance isn't even close.

While crises between China and U.S. allies on its periphery like the Philippines could escalate into US-China crises, we don't have anything comparable to the complex and finely balanced international system at the time of World War I. Austria-Hungary attacked Serbia and as a direct result of that Germany attacked Belgium. It's hard to see how, for example, a Turkish attack on Syria could cause China to attack Vietnam. Today's crises are simpler, more direct and more easily controlled by the top powers.

#### No Iran war with the US or Israel

* No domestic support in Israel or the US – especially given 2020 elections
* Polls prove rally around the flag doesn’t work with Iran
* Iraq, Lebanon, and Tukey will block the Israeli air force
* They’d have to rely on cruise missiles which aren’t enough

Hallinan 2/1/19 [Conn Hallinan, columnist for Foreign Policy In Focus, PhD in Anthropology from the University of California, Berkeley, “Could Trump Really Launch a War With Iran?”, https://fpif.org/could-trump-really-launch-a-war-with-iran/]

Would the U.S. or Israel Actually Attack?

Of course, if the United States and/or Israel join in, Iran will be hard pressed. But as belligerent as Bolton and the Israeli government are toward Iran, would they initiate or join a war?

Such a war would be unpopular in the United States. Some 63 percent of Americans oppose withdrawing from the nuclear agreement and, by a margin of more than 2 to 1, oppose a war with Iran. While 53 percent oppose such a war — 37 percent strongly so — only 23 percent would support a war with Iran. And, of those, only 9 percent strongly support such a war.

The year 2020 is also the next round of U.S. elections, where control of the Senate and the White House will be in play. While wars tend to rally people to the flag, the polls suggest a war with Iran is not likely to do that. The U.S. would be virtually alone internationally, and Saudi Arabia is hardly on the list of most Americans’ favorite allies.

And it’s not even certain that Israel would join in, although Prime Minister Benjamin Netanyahu calls Iran an “existential threat.” Polls show that the Israeli public is hardly enthusiastic about a war with Iran, particularly if the U.S. isn’t involved.

The Israeli military is more than willing to take on Iranian forces in Syria, but a long-distance air war would get complicated. Iraq and Lebanon would try to block Israel from using their airspace to attack Iran, as would Turkey. The first two countries might not be able to do much to stop the Israelis, but flying over a hostile country is always tricky, particularly if you have to do it for an extended period of time. And anyone who thinks the Iranians are going to toss in the towel is delusional.

Of course Israel has other ways to strike Iran, including cruise missiles deployed on submarines and surface craft. But you can’t win a war with cruise missiles; you just blow a lot of things up.

#### No strikes – Israel would never

* They’d have done it by now – preemptively attacked Iraq and Syria within weeks of finding single reactors
* A strike would make the bomb more likely by emboldening Iran, they’d leave the NPT, kick out IAEA watchdogs, and sanctions support collapses – funds nuke mod in Iran
* It hurts Israel by eroding regional allies and Iran gets a face lift – independently messes up US-Israel ties and erodes assurances
* Veto players – Netanyahu needs approval from the IDF and security cabinet and they all hate him

Keck 15 [Zachary Keck is the Wohlstetter Public Affairs Fellow at the Nonproliferation Policy Education Center. Before that, he was a researcher at the Belfer Center for Science and International Affairs. "5 Reasons Israel Won't Attack Iran." https://nationalinterest.org/commentary/five-reasons-israel-wont-attack-iran-9469?page=0%2C1]

Although the interim deal does further reduce Israel’s propensity to attack, the truth is that the likelihood of an Israeli strike on Iran’s nuclear facilities has always been greatly exaggerated. There are at least five reasons why Israel isn’t likely to attack Iran.

1. You Snooze, You Lose

First, if Israel was going to strike Iran’s nuclear facilities, it would have done so a long time ago. Since getting caught off-guard at the beginning of the Yom Kippur War in 1973, Israel has generally acted proactively to thwart security threats. On no issue has this been truer than with nuclear-weapon programs. For example, Israel bombed Saddam Hussein’s program when it consisted of just a single nuclear reactor. According to ABC News, Israel struck Syria’s lone nuclear reactor just months after discovering it. The IAEA had been completely in the dark about the reactor, and took years to confirm the building was in fact housing one.

Contrast this with Israel’s policy toward Iran’s nuclear program. The uranium-enrichment facility in Natanz and the heavy-water reactor at Arak first became public knowledge in 2002. For more than a decade now, Tel Aviv has watched as the program has expanded into two fully operational nuclear facilities, a budding nuclear-research reactor, and countless other well-protected and -dispersed sites. Furthermore, America’s extreme reluctance to initiate strikes on Iran was made clear to Israel at least as far back as 2008. It would be completely at odds with how Israel operates for it to standby until the last minute when faced with what it views as an existential threat.

2. Bombing Iran Makes an Iranian Bomb More Likely

Much like a U.S. strike, only with much less tactical impact, an Israeli air strike against Iran’s nuclear facilities would only increase the likelihood that Iran would build the bomb. At home, Supreme Leader Ali Khamenei could use the attack to justify rescinding his fatwa against possessing a nuclear-weapons program, while using the greater domestic support for the regime and the nuclear program to mobilize greater resources for the country’s nuclear efforts.

Israel’s attack would also give the Iranian regime a legitimate (in much of the world’s eyes) reason to withdraw from the Nuclear Non-Proliferation Treaty (NPT) and kick out international inspectors. If Tehran’s membership didn’t even prevent it from being attacked, how could it justify staying in the regime? Finally, support for international sanctions will crumble in the aftermath of an Israeli attack, giving Iran more resources with which to rebuild its nuclear facilities.

3. Helps Iran, Hurts Israel

Relatedly, an Israeli strike on Iran’s nuclear program would be a net gain for Iran and a huge loss for Tel Aviv. Iran could use the strike to regain its popularity with the Arab street and increase the pressure against Arab rulers. As noted above, it would also lead to international sanctions collapsing, and an outpouring of sympathy for Iran in many countries around the world.

Meanwhile, a strike on Iran’s nuclear facilities would leave Israel in a far worse-off position. Were Iran to respond by attacking U.S. regional assets, this could greatly hurt Israel’s ties with the United States at both the elite and mass levels. Indeed, a war-weary American public is adamantly opposed to its own leaders dragging it into another conflict in the Middle East. Americans would be even more hostile to an ally taking actions that they fully understood would put the U.S. in danger.

Furthermore, the quiet but growing cooperation Israel is enjoying with Sunni Arab nations against Iran would evaporate overnight. Even though many of the political elites in these countries would secretly support Israel’s action, their explosive domestic situations would force them to distance themselves from Tel Aviv for an extended period of time. Israel’s reputation would also take a further blow in Europe and Asia, neither of which would soon forgive Tel Aviv.

4. Israel’s Veto Players

Although Netanyahu may be ready to attack Iran’s nuclear facilities, he operates within a democracy with a strong elite structure, particularly in the field of national security. It seems unlikely that he would have enough elite support for him to seriously consider such a daring and risky operation.

For one thing, Israel has strong institutional checks on using military force. As then vice prime minister and current defense minister Moshe Yaalon explained last year: “In the State of Israel, any process of a military operation, and any military move, undergoes the approval of the security cabinet and in certain cases, the full cabinet… the decision is not made by two people, nor three, nor eight.” It’s far from clear Netanyahu, a fairly divisive figure in Israeli politics, could gain this support. In fact, Menachem Begin struggled to gain sufficient support for the 1981 attack on Iraq even though Baghdad presented a more clear and present danger to Israel than Iran does today.

What is clearer is that Netanyahu lacks the support of much of Israel’s highly respected national security establishment. Many former top intelligence and military officials have spoken out publicly against Netanyahu’s hardline Iran policy, with at least one of them questioning whether Iran is actually seeking a nuclear weapon. Another former chief of staff of the Israeli Defense Forces told The Independent that, “It is quite clear that much if not all of the IDF [Israeli Defence Forces] leadership do not support military action at this point…. In the past the advice of the head of the IDF and the head of Mossad had led to military action being stopped.”

### 1NC: Tech

#### Scarcity key to Chinese clean tech—spurs government investment, displaces coal

Schneider and Smith 11 Update: August 15, 2011 Keith Schneider, who has reported on energy, water, and climate change from four continents, is a Traverse City-based senior editor for Circle of Blue. Toby Smith is a British photojournalist represented by Reportage by Getty Images who specializes in global energy and environment matters. “New Wind and Solar Sectors Won’t Solve China’s Water Scarcity” Original article, Tuesday, 22 February 2011 06:00 http://www.circleofblue.org/waternews/2011/world/new-wind-and-solar-sectors-wont-solve-chinas-water-scarcity/

Northern Gansu is doing that and considerably more. This region of dust and industrial innovation—about as far west from Beijing as Montana is from New York—has very quickly become a booster stage for China’s rocket ride to the top of the global water-sipping clean energy heap. Prompted by a national decision in 2005 to diversify the nation’s energy production portfolio, and to do so with the goal of reducing water consumption and climate-changing carbon emissions, Gansu and its desert neighbors are pursuing clean energy development with a ferocity unrivaled now in the world. Along with northern Gansu, there are six other wind energy bases and eight other solar power bases being built in China—most of them in the desert regions of northern and western China. China also has a burst of seawater-cooled nuclear power plants under construction along its eastern coast. Coal Is China’s Largest Industrial Water Consumer In 2010, China produced 3.15 billion metric tons of coal, according to government figures, most of it to produce electricity. Of the 960 GW of generating capacity in China, and the 4.19 trillion kilowatt hours of electricity that were produced last year, 80 percent was powered by coal. China’s coal mining, processing, and electrical generating industries consumed over 120 billion cubic meters (32 trillion gallons) of water annually, which is about 20 percent of all national water consumption, according to the China Ministry of Water Resources. Total electrical generating capacity is expected to double in China by the end of the decade, reaching 1,900 GW. The magnitude of the increase is astonishing. In 2020, nine years from now, government officials and energy industry executives project adding as much electrical generating capacity as exists today in the United States. More than half of this increase, 500 GW, according to various government and academic projections, will come from coal. Coal production and use could grow to over 4 billion metric tons per year by 2020, which is about 30 percent more than last year, according to analysts at Tsinghua University in Beijing. That means even more water will be consumed. The China Ministry of Water Resources estimates that annual water use will increase from 599 billion cubic meters in 2010 to as much as 670 billion cubic meters in 2020. The largest share of that increase—15 billion cubic meters (4 trillion gallons) a year—is due to the increase in coal mining and processing, along with cooling coal-fired power plants. Meanwhile, China is slowly getting drier. The overall supply of water available in China’s rivers, lakes, and aquifers has fallen 13 percent since 2000, according to the National Bureau of Statistics. Chinese climate scientists and hydrologists say this trend—which has reduced the nation’s total water supply by 350 billion cubic meters (93 trillion gallons) a year—will continue as a result of climate change, which is disrupting patterns of snowfall and rain. The searing conditions, coupled with China’s insistence on developing at a scale and speed never seen previously, are yielding a decisive environmental and economic choke point with global implications. The driest northern and western regions—Inner Mongolia, Shanxi, Xinjiang—are precisely where the vast new reserves of coal that China says it needs for modernization are located. For the time being, most of those new reserves can’t be tapped because there is not enough water. Northern China’s rainless weather, moreover, appears to be getting worse. Beijing and other northern and western cities are currently enduring the driest winter in 60 years. China’s National Energy Administration projects that, over the next decade, generating capacity from wind, solar, and nuclear power will more than quadruple, from 53 gigawatts in 2010 to 230 gigawatts in 2020. The other big non-carbon electrical producer is hydropower, which is expected by the government to grow to 400 GW of capacity by 2020, up from 213.4 GW last year. (For reference, one gigawatt, or GW, is equal to 1,000 megawatts, or the generating capacity of a big nuclear- or coal-fired power plant.) Wind energy now accounts for 42GW, or 16 percent of the nation’s non-carbon electrical generating capacity. China’s energy officials projected last year that wind energy generating capacity will rise to 150 GW by 2020, though many wind industry executives predict the number will reach more than 200 GW. Solar generating capacity is expected to jump from less than one GW in 2010 to 20 GW by 2020. Nuclear power is projected to increase from 11 GW to 60 GW in the next decade. Yet China’s demand for electricity is rising so quickly that the massive investment in new generating technologies will not make nearly as large of a dent in production—or in freshwater conservation—as many people might expect. Simply put: wind, solar, and nuclear power will climb to around 13 percent of the 1,900 GW of generating capacity expected by 2020, according to government data. That’s up from the nearly six percent of the 960 GW of generating capacity today. The new wind, solar, and seawater-cooled nuclear plants will replace roughly 100 big coal-fired generating stations, which equates to a savings of 3.5 billion cubic meters (nearly one trillion gallons) of water annually, according to academic and government estimates. The clean energy stations also will eliminate around 750 million metric tons of climate-changing emissions annually. But China’s national water use—599 billion cubic meters in 2010—is anticipated to grow by 71 billion cubic meters by the end of the decade. And the increase in water consumption, a good portion of which is spurred by new coal production, is occurring in a nation that is steadily getting drier. (See sidebar) Put another way, the $US 738 billion that government authorities promised last year to spend on non-fossil fuel power generation over the next decade will jump start China’s clean energy economic transition. The enormous solar and wind-related manufacturing plants across China already employ tens of thousands of people. They are irrefutable evidence of the capacity of clean energy to spur job growth. They also are a signal to the United States and other nations that China is prepared to dominate wind, solar, nuclear, and other cleaner sources of power that global energy economists predict will eventually generate trillions of dollars in revenue each year. But clean energy development will not solve the commanding threat to China’s modernization – the confrontation between rising energy demand and declining reserves of fresh water. Over the next decade, and likely well beyond that, the water savings from solar, wind, and seawater-cooled nuclear power will not be nearly enough to loosen the noose that water scarcity is steadily tightening around China’s coal production and combustion sector, and its national economy. (See sidebar) “There may be an ultimate day of reckoning approaching,” said Nicholas Lardy, a senior fellow and China specialist at the Peterson Institute in Washington D.C. “But there are a lot of intermediate steps China is prepared to take and already is taking to hold it off as long as possible.” No Turning Back Chinese development officials insist they have no intention of backing away from the country’s rapid modernization or from using every available energy-producing option to fuel that growth. A powerful transition is occurring in China, much of it focused on attracting new pioneers to the dry northern and western provinces. The strategy appears to be working. China Water Energy Wind Power Industry Manufacturing Photo © Toby Smith/Reportage by Getty Images for Circle of Blue The New Energy Equipment Manufacturing Industry base, a collection of state-of-the-art manufacturing plants, is the largest non-carbon energy manufacturing center in the world, say Chinese energy officials. Click image to enlarge. The modern cities under construction in Gansu Province, Inner Mongolia, Xinjiang, Ningxia, and Jilin are supported by new factories turning out steel, aluminum, vehicles, appliances, wind turbines, mining equipment, and hundreds of other products intended to supply China’s rapidly expanding domestic markets. High-rise apartments are under construction in clumps of 30-story concrete towers in every major city. Streets and highways are jammed with late-model and expensive cars. Restaurants are full day and night. Long lines form at checkout counters in Western-style grocery superstores. The provincial economies of northern and western China are growing at a faster rate than the national gross domestic product, which reached 10.3 percent in 2010, according to the latest government figures. The new regional growth has been spurred, in part, by clean energy production and manufacturing, which China recognized was a good fit for the windy, sunny, and dry geography. A province with 25 million residents and about the same geographical size as Sweden, Gansu has managed energy production and water scarcity for decades. Oil was discovered around Yumen in the 1930s, and a sizable production and refining industry thrived for over half a century. One of the historical highlights of Gansu’s energy industry is that Chinese Premier Wen Jiabao, a trained geologist and China’s second most powerful political figure, spent the early part of his technical and government career from 1968 to 1982 managing Gansu’s mineral and water resources. China Water Energy Wind Power Industry Manufacturing Photo © Toby Smith/Reportage by Getty Images for Circle of Blue China is developing massive solar resources in the Gobi Desert of northern Gansu Province. 20 MW is already online. Generating capacity is expected to grow to 12,000 MW by 2025. Click image to enlarge. In 1996, provincial officials began to experiment with replacing northern Gansu’s oil sector with wind. They installed four 300-kilowatt wind turbines at the Yumen Jieyuan Wind Power Plant. Cities in Xinjiang, to the west of Gansu, and the Inner Mongolia Autonomous Region, east of Gansu, also joined Gansu as the first provinces to experiment with utility-scale clean energy generation. The sector grew steadily—albeit slowly—for nearly a decade, said executives here in Jiuquan. But, in the earliest years of the new century, wind power began to spin with economic authority.

#### Can’t solve warming without China

Chen et al 10Chen, Qian, Peridas, Qiu, Ho: Natural Resources Defense Council, Friedmann: Lawrence Livermore National Laboratory, Li, Wei: Institute of Rock and Soil Mechanics, Chinese Academy of Sciences, Sung, Fowler: Clean Air Task Force, Seligsohn, Liu, Forbes: World Resources Institute, Zhang: China Tsinghua University, Zhao: Institute of Engineering Thermophysics, Chinese Academy of Sciences (Jason Chen, Jingjing Qian, George Peridas, Yueming Qiu, Bruce Ho, Julio Friedmann, Xiaochun Li, Ning Wei, S. Ming Sung, Mike Fowler, Deborah Seligsohn, Yue Liu, Sarah Forbes, Dongjie Zhang, Lifeng Zhao, December 2010, “Identifying Near-Term Opportunities For Carbon Capture and Sequestration (CCS) in China,” <http://docs.nrdc.org/international/files/int_10121001a.pdf)//DR>. H

As discussed at the beginning of this report, if China and the world are to avoid the worst consequences of climate change, then China’s rapid growth in total carbon dioxide emissions— though approaching only the world’s average level on a per capita basis—must be curtailed and begin to decrease within the next two decades. This process must happen in parallel with deep emissions reductions by industrialized countries, starting now, in order to save the world from dangerous climate change. Based on what the world currently knows and is capable of achieving, CCS will likely be a necessary strategy, in concert with other measures, to realize critically needed emissions abatement in China and other large fossil fuel consuming countries. Because CCS involves largescale systems engineering and geologic expertise, international collaboration will be indispensable for accelerating CCS development and deployment in the countries that need the technology. For China, which still faces daunting development needs and has relatively limited technological, financial and regulatory capacities in some areas, international collaboration and assistance are all the more critical.

#### Warming causes extinction

Oliver Tickell (Climate Researcher) August 11 2008 “On a planet 4C hotter, all we can prepare for is extinction”, <http://www.guardian.co.uk/commentisfree/2008/aug/11/climatechange>)

We need to get prepared for four degrees of global warming, Bob Watson told the Guardian last week. At first sight this looks like wise counsel from the climate science adviser to Defra. But the idea that we could adapt to a 4C rise is absurd and dangerous. Global warming on this scale would be a catastrophe that would mean, in the immortal words that Chief Seattle probably never spoke, "the end of living and the beginning of survival" for humankind. Or perhaps the beginning of our extinction. The collapse of the polar ice caps would become inevitable, bringing long-term sea level rises of 70-80 metres. All the world's coastal plains would be lost, complete with ports, cities, transport and industrial infrastructure, and much of the world's most productive farmland. The world's geography would be transformed much as it was at the end of the last ice age, when sea levels rose by about 120 metres to create the Channel, the North Sea and Cardigan Bay out of dry land. Weather would become extreme and unpredictable, with more frequent and severe droughts, floods and hurricanes. The Earth's carrying capacity would be hugely reduced. Billions would undoubtedly die. Watson's call was supported by the government's former chief scientific adviser, Sir David King, who warned that "if we get to a four-degree rise it is quite possible that we would begin to see a runaway increase". This is a remarkable understatement. The climate system is already experiencing significant feedbacks, notably the summer melting of the Arctic sea ice. The more the ice melts, the more sunshine is absorbed by the sea, and the more the Arctic warms. And as the Arctic warms, the release of billions of tonnes of methane – a greenhouse gas 70 times stronger than carbon dioxide over 20 years – captured under melting permafrost is already under way. To see how far this process could go, look 55.5m years to the Palaeocene-Eocene Thermal Maximum, when a global temperature increase of 6C coincided with the release of about 5,000 gigatonnes of carbon into the atmosphere, both as CO2 and as methane from bogs and seabed sediments. Lush subtropical forests grew in polar regions, and sea levels rose to 100m higher than today. It appears that an initial warming pulse triggered other warming processes. Many scientists warn that this historical event may be analogous to the present: the warming caused by human emissions could propel us towards a similar hothouse Earth.