## T

#### Interpretation: The affirmative must defend that the member nations of the World Trade Organization ought to reduce intellectual property protections for medicine.

#### Medicines solely refer to physical substances.

American Heritage Dictionary of Medicine 18 The American Heritage Dictionary of Medicine 2018 by Houghton Mifflin Harcourt Publishing Company <https://www.ahdictionary.com/word/search.html?q=medicine#:~:text=1.,exercise%2C%20and%20other%20nonsurgical%20means>.

"A **substance**, **especially a drug**, **used to treat** the signs and symptoms of a **disease**, condition, or injury."

#### Violation- CRISPR are stretches of DNA- not a substance and not for treatment

https://www.livescience.com/58790-crispr-explained.html

In popular usage, "CRISPR" (pronounced "crisper") is shorthand for "CRISPR-Cas9." CRISPRs are specialized stretches of DNA. The protein Cas9 (or "CRISPR-associated") is an enzyme that acts like a pair of molecular scissors, capable of cutting strands of DNA.

#### Further proven by their ev- cards like thorne refer to it as a practice not a tangible thing

#### UR ev only says it functions as a drug, not is one

#### CTX001 isnt the same as crispr which is what ur ev is about

#### Vote neg for limits -- there are tons of different medicines, which means their interp justifies reducing any IP protection in any medicine, creating hundreds of potential AFFs to prep out. This kills negative ground because different countries can have different economic situations that affect the Innovation debate and we lose all disads to global action. Two impacts:

#### 1 -- Fairness -- an unlimited topic makes neg engagement impossible because there’d be tons of new AFFs to prep out every tournament. Uniquely kills small schools because they’d be unable to keep up with the prep burden.

#### 2 -- Research -- the neg loses any incentive to do targeted research when the prep burden is so high so debaters would resort to stale generics and lose topic specific education. That outweighs because we only have 2 months to debate the topic and COVID is uniquely important to many debaters’ lives.

#### Paradigms:

#### Drop the debater to deter future abuse and DTA is illogical on T

#### Competing interps because reasonability is arbitrary and invites judge intervention.

#### No RVIs: 1] Illogical – you shouldn’t win for being fair

## K

#### Capitalism causes massive violence and inevitable extinction – the role of the ballot is to endorse the best organizational tactics.

Escalante 19 [Alyson Escalante, M.A., Department of Philosophy @ University of Oregon, “Truth and Practice: The Marxist Theory of Knowledge,” 09/08/19, tinyurl.com/8jksnexs] pat

The world we live in today is in a dire state. Climate destruction continues at a fast pace, and every with every passing day, capitalism proves itself to be incapable of addressing this. Capitalist production and its endless drive for resources to match artificial market demands has created a climate crisis that leaves us on the brink of potential extinction.

Governments around the world are turning to far right and fascist leaders to assuage their fears of an uncertain future, and the most marginalized and oppressed suffer because of it. Fascism is on the rise, and history tells us very clearly what that can result in without opposition.

The decaying US empire continues to lash out in violence across the globe in a desperate attempt to re-assert its power and hegemony. Whole countries are destroyed in its desperate bids for more fossil fuels. The world burns from America’s white phosphorus weaponry.

The need for a revolutionary movement capable of replacing capitalism with something better has never been so clear. The choice between socialism or barbarism has never been so stark. More and more people are starting to realize that reform cannot save us, that capitalism and imperialism themselves are the problem, and that we must unite and band together to fight for a better world.

The question then is: how will we know what strategies, what tactics, and what ideas to unite around? If the skeptics and postmodernists are correct that knowledge is always relative and localized, then we cannot built a global and universal strategy to unite around. If they are correct then we are doomed to small acts of localized or individual resistance in the face of apocalypse. To embrace such a vision of the world (with its accompanying epistemological skepticism) is to embrace defeat.

The masses do not want to embrace defeat, they want to know how to fight back. Marxism can provide the tools necessary to engage in that fight.

Marxism, with its self criticism and its insistence on incorporating the valuable ideas of its critics has created a means for unifying workers across the globe with anti-colonial and anti-imperialist struggles. The Marxist belief in the possibility of true ideas, tested and verified in practice, creates the possibility for unity on a global scale. The scientific status of Marxism means that as our climate changes, as our world looks more and more grim, Marxism will adapt through struggle and practice; it will provide us with the ideas and tools we need to fight and win.

There will be no victory for the workers of the world without the ability to wield a revolutionary science. What is at stake in questions of Marxist epistemology is the very possibility of creating a philosophical and scientific basis for revolution. We must defend this possibility. We must defend the scientific status of Marxism, and must insist on the possibility of victory.

#### The aff’s positioning of competition as intrinsic good acts to maintain the stability of capital accumulation.

Christophers 16 [Brett Christophers, Professor in the Department of Social and Economic Geography at Uppsala University, “The Great Leveler: Capitalism and Competition in the Court of Law,” 2016, Harvard University Press, pp. 8-15, EA]

The aforementioned argument that capitalism has historically migrated from a state of competitiveness to a state of monopoly or oligopoly is deficient in four primary respects, both empirical and conceptual in nature.

First, there is something deeply misleading about the either/or nature of this historical narrative. One of the most important—although rarely acknowledged—of Marx’s insights was that capitalism always, everywhere, requires both. It needs competition, assuredly, not least to drive technological innovation and the reinvestment of profits, and thus growth. But it also needs monopoly—not merely to enhance visibility within and control over otherwise potentially chaotic business environments, but also to underwrite capitalist, market-based trade per se. Not for nothing does David Harvey argue, after Marx, that the “monopoly power of private property” is “both the beginning point and the end point of all capitalist activity.”20 For the legal institution of private property does confer monopoly: the exclusive power to dispose of said property as the owner alone sees fit.

Capital’s seemingly paradoxical need for both competition and monopoly is explored in Chapter 1, which extracts from Marx a conceptualization of capitalism that critically informs the remainder of the book: that of capitalism always, necessarily, teetering on a knife edge, balanced precariously between the contradictory forces of competition and monopoly, and perennially in danger of lapsing too far to one side or the other. “The problem,” Harvey shrewdly observes, “is to keep economic relations competitive enough while sustaining the individual and class monopoly privileges of private property that are the foundation of capitalism as a political-economic system.”21

And it is here that our economic laws crucially enter the picture. In metaphorical terms, the law acts as a powerful leveler: a pincer of sorts on the critical, combustible nexus of monopoly and competition, applicable from one side of the knife edge, the other, or both. Antitrust (competition) law, meaningfully enforced, serves to constrain monopoly power where it coheres too readily, thus boosting competition; IP law acts from the other side, allowing a degree of monopoly power where none “naturally” coheres, and limiting competition in the process. This conceptualization of economic law is sketched out in Chapter 3. Together, such laws help to ensure that over the long term, market-based capitalism is not too competitive (driving down prices and profits) but, in Harvey’s terms, remains competitive enough (avoiding stagnation and rent-seeking). In the process, the laws in question historically have contributed substantially to keeping capitalist accumulation regimes broadly in balance.

At the pivot of this overall mechanism sits the phenomenon of profit. Following the lead of scholars such as Robert Brenner, this book places front and center the relationship between profitability and the interrelated dynamics of competition and monopoly.22 As, indeed, did the classicals: Profit rates were, as Chapter 1 will show, fundamental to their theorization of competition. But it is vital to recognize, as writers such as Keith Cowling have done, that this relationship does not assume a simplistic less-competition-means-more-profit form, isolated as it were from other contributory factors.23 Indeed, the book shows that excesses neither of competitive intensity nor of monopoly power support long-term stability of profit-making and accumulation.

Instead, it leans more toward the type of argument proffered by Gérard Duménil and Dominique Lévy, which is that the dynamics of profitability strongly influence the state’s attempts to regularize regimes of accumulation, and that stabilizing capitalism is thus in no small part a question, ultimately, of stabilizing profitability.24 Or, as David Gordon and coauthors have written, the reproduction of capitalism is “fundamentally conditioned by the level and stability of capitalist profitability. As profits go, in short, so goes the economy.”25 The book’s particular slant on such conceptions is to consider corporate profits more in relative than absolute terms—and relative to, especially, labor and wages. While a comparable focus has recently been adopted by Thomas Piketty in his much discussed Capital in the Twenty-First Century, the inspiration underlying the approach taken here lies much further back in time, in the work in particular of Michal Kalecki.26 For as Kalecki showed both historically and conceptually, the relation of capital with labor, and profit with wages, is centrally implicated in the monopoly-competition relation and the balance that capitalism requires of it. Kalecki, it is fair to say, would have had some very interesting things to say about the Apple wage-suppression antitrust lawsuit.

A second and related problem with the linear historical narrative of from-competition-to-monopoly is its positing of monopoly and competition not only as mutually exclusive alternatives, but as separable ones. Once more, we can turn to Marx for an effective disabusal of this figuring. Monopoly and competition, he argued, are much more closely related, and much more closely connected, than is typically recognized. “Monopoly produces competition, competition produces monopoly,” he maintained, somewhat aphoristically, in a letter he wrote to Pavel Annenkov in 1846.27 Capital not only requires both but is in fact the expression, inter alia, of their synthesis—a synthesis that Marx, in trademark dialectical fashion, described not as a “formula” but as a “movement,” specifically “the movement whereby a true balance is maintained between competition and monopoly.”28 Such movement comprises opposing but connected economic dynamics of centralization and decentralization. When one or the other dynamic becomes disproportionately powerful, Marx argues, the “counteracting tendency” kicks in to return capital to a balanced configuration of monopoly and competition.

This balanced organization of productive forces—always inherently unstable and always prone to knife-edge slippages—is very close to what Edward Chamberlin would later call “monopolistic competition.”29 Such monopolistic competition internalizes monopoly and competition in dialectical relation with one another and is the capitalist norm—and always has been. “The notion of a bygone ‘competitive’ stage of capitalism where firms were price-takers is,” as Duménil and Lévy insist, “a fiction derived from the neoclassical analytical apparatus.”30 Equally fictional, albeit a fiction usually emanating from a very different analytical source, is the notion of a contemporary “monopoly” stage of capitalism absent meaningful competition.31

The historical, U.S.- and U.K.-based narrative related in this book therefore turns on precisely this dialectical, restless synthesis of monopoly and competition, and its ever-evolving, historically and geographically specific forms. In recent years, it is Harvey who has provided the most provocative reading of this dialectic and of its centrality to capitalism. It is, Harvey argues, one of numerous “moving” contradictions that plague the capital form, and with which capital constantly wrestles as it enters into and out of crisis.32 Harvey repeats Marx’s observation that capital requires a balance of competitive and monopolistic forces. He then derives from this postulate the propositions that crisis occurs when such forces become imbalanced—although this is not the only cause of crisis—and that such crisis can only be “fixed” once balance is restored. The result is that capital historically “oscillates” between relative excesses of monopoly and competition, always finding balance hard to achieve, let alone sustain.33 Understanding capital and its historical development in this particular regard, Harvey insists, requires us to recognize “how successful capital has generally been in managing the contradictions between monopoly and competition” and that “it uses crises to do so.”34

Such success, and the role played by crises or by threats thereof, are two of this book’s central, recurring themes. However, Harvey’s framing raises two vital questions that he fails, in his admittedly brief account of monopoly and competition, to answer.

First, how has this success been achieved? “Capital,” Harvey writes, “has organically arrived at a way to balance and rebalance the tendencies towards a monopolistic centralisation and decentralised competition through the crises that arise out of its imbalances.”35 Again, there is no objection here, except to press: “organically,” how? This book fashions an answer. This answer rests on the role of the law. When capital has become sufficiently overcentralized and monopolistic to threaten its own successful, profitable reproduction, antitrust law has been called upon to help restore the necessary degree of balance. This balance will never be perfect and at rest; in a dialectical relation, such as that between monopoly and competition, it never can be. When the dangerous excess has been of competition, by contrast, IP law has come to the rescue. Such laws, needless to say, have not effected this work of rebalancing by themselves, and this book documents their interaction with other pertinent dynamics; but their role has been paramount.

The other problematic question raised by Harvey’s framing brings us directly to our third point of divergence with the Baran and Sweezy or Foster and McChesney reading of capitalist development. Consider here the agency behind the successful, crisis-based management and rebalancing of monopolistic and competitive forces envisioned by Harvey: “capital has been successful . . .”; “capital has arrived at . . .” But what, or who, is this capital, and has its form remained constant? For Harvey, clearly, capital is the capitalist class: those that own the means of production. Yet this singularization of responsibility for regulating and reregulating the core dynamics of the capitalist economy raises all manner of questions that Harvey fails to address. Is this capitalist class homogeneous? Does it share consistent objectives in terms of economic development and management? And even if it does (and of course, it does not), what is its relation with the state and with the different tools of economic regulation, the law among them, that the state uses to govern and shape economic conduct?

If Harvey’s stimulating propositions call for circumspection on account of their simplifying structural abstractions, the connection to the “monopoly capital” thesis is that it too tends to rely upon just such totalizing, even reified, concepts. “Monopoly capital” is itself one such. One of the consistent themes of the tradition renewed by The Endless Crisis—one extending back through Baran and Sweezy’s Monopoly Capital to Rudolf Hilferding’s Finance Capital (1910) and even Lenin’s Imperialism (1917)—is its tendency not only to associate potent monopoly powers with a new stage or phase of capitalism but to depict the latter in terms of a consciously regulated and (centrally) planned system in which market-based competition largely disappears from view.36 For Lenin, this system fused the interests of capital and state (state monopoly capitalism); for Hilferding the fusion was tripartite, with finance capital also integral. But Marx, for all the stereotypes to the contrary, never saw capitalism as such. It was a totality, to be sure, but one that needs to be continually reproduced and reconstituted. This process occurs in and through the disparate actions of government, workers, consumers, businesses, and so on; when such reconstitution occurs in ways that imperil accumulation, crisis looms.

The point of saying all this is not simply to oppugn a totalizing view of “monopoly capital,” but to contrast with it the approach taken in this book, particularly to the law and its mobilization. There is not, and has not been, a single hand on the tiller, for all the obvious importance of the state as the law’s formal originator; there is no single, homogeneous entity pulling the levers, so to speak, of political-economic regulation— no consistent regime of conscious, systematic control. As with other modalities of economic regulation or governance, the law, in practice, does not “work” like that.

For one thing, there is an important difference between the written law and its interpretation. Two courts can interpret and apply the same law or laws in markedly different ways and with very different consequences. Perhaps the clearest example of this, at least in this book (Chapter 6), concerns U.S. antitrust law in the second half of the twentieth century: The nature and degree of enforcement of this law underwent a dramatic transformation in the late 1970s and early 1980s, but the law itself did not materially change. Intellectual training, social and political context, even judicial personality: These variables, and more, all matter to the law’s practical materialization. As such, we must remain constantly alive to the simple fact that, as Peter Carstensen has put it, “court doctrine is not the whole of the law in practice.”37 Relatedly, much of the enforcement of IP rights occurs at a significant remove from courts—specifically in, as argued by William T. Gallagher, the everyday practices of IP owners and their lawyers, whose “negotiations” with alleged infringers take place largely in the “shadow” of IP law.38

For another thing, just as the state never enacts new economic laws in total isolation from the influence and interests of capital, so both capital(s) and state—and indeed other economic agents—use the law to their own ends, and these ends are far from necessarily commensurate. Think, once again, about our two Apple cases. Who, in each case, instigated the legal action? Who put the law to work in their own interests? In the IP case it was Apple itself. In the class-action suit it was labor. But the latter suit was in fact itself based upon a prior government investigation launched by the Department of Justice’s Antitrust Division in 2010.39 Three legal cases, then, all driven by different actors with different motivations, but all revolving around the same political-economic locus: the knotty complex of profit generation and accumulation constituted by Apple Inc. And if the law, together with its agents, is so palpably nonsingular at the scale of the political economy of just one company, on what reasonable grounds could we ever envision it thus—as a vehicle of conscious, unified control—in relation to the political economy of capitalism more widely? The “great leveler” indicated in the book’s title, in short, is not some omnipotent regulator in charge of the law; it is the law per se.

How, then, might we more accurately characterize the human and institutional agency analyzed in the following pages in relation to the law, its mobilization, and its political-economic effects? At a general level, the conclusion reached by Paul David in his examination of the history of IP law fits particularly well: “The complex body of law, judicial interpretation, and administrative practice that one has to grapple with in this field was not created by some rational, consistent, social welfare-maximizing public agency. What one is faced with, instead, is a mixture of the intended and unintended consequences of an undirected historical process on which the varied interests of many parties, acting at different points (some widely separated in time and space), have left an enduring mark.”40 More specifically, however, we will see that although IP and competition laws have indeed performed their work under the influence of varied individuals and groups, the vast majority of the latter are ultimately committed to, and institutionally invested in, the reproduction, in as smooth a fashion as possible, of capitalism in more or less its existing form. And even more specifically, the “smoothness” here alluded to means the reproduction of capitalism especially without the kinds of problems—identified in Chapter 3—that tend to emerge when the necessary balance between monopoly and competition is substantially disrupted.

On all the above grounds, therefore, this book’s argument diverges from that which we find in the all-too-common narrative of competitive capitalism historically segueing into monopoly capitalism. Of course, none of this is to suggest that nothing has changed historically in the capitalist constellation of monopoly-competition structures and dynamics. Far from it. But the book’s fourth and final quarrel with the conventional narrative is that what has substantively, perhaps irrevocably, changed is not the relative levels of competitive intensity and monopoly power—as in, that era had more competition, this one has more monopoly—so much as the source of monopoly powers and the degree of defensibility thereof.

Capitalism, this argument runs, is always characterized by competitive undercurrents; were it not, it would not be capitalism. Meanwhile, and arising partly out of these competitive dynamics (the Marxian argument), there is an endemic drive to fashion monopoly powers. Yet the means of assembly of such powers do not remain constant, and neither does the ability of monopolistic capitalists to defend the powers thus amassed. Capitalists—and indeed the states committed to stabilizing capitalism, with the law one obvious apparatus at their disposal—must constantly find new ways of putting monopoly in place and keeping it there. “As monopoly privileges from one source diminish,” Harvey observes, “so we witness a variety of attempts to preserve and assemble them by other means.”41 Mindful, thus, of Marx’s dictum that the monopoly-versus-competition dualism is a red herring that confuses a dialectical relation for an oppositional one, this book focuses instead on the ways in which the unstable balance between the two forces is maintained—and it posits the law as the primary, necessarily mutable, instrument of such maintenance.

#### Capitalist trade is central to global warming.

Bello 08Walden, senior analyst at the Bangkok-based research and advocacy institute Focus on the Global South and professor at the University of the Philippines, July 28, “Derail Doha, Save the Climate”, <http://www.commondreams.org/views/2008/07/29/derail-doha-save-climate/> brett

There’s something surreal about the ongoing World Trade Organization talks in Geneva, which aim at coming up with a new agreement to bring down tariffs in order to expand world trade and resuscitate global growth. In the face of the looming specter of climate change, these negotiations amount to arguing over the arrangement of deck chairs while the Titanic is sinking. Indeed, one of the most important steps in the struggle to come up with a viable strategy to deal with climate change would be the derailment of the so-called “Doha Round.” Global trade is carried out with transportation that is heavily dependent on fossil fuels. It’s estimated that about 60% of the world’s use of oil goes to transportation activities which are more than 95% dependent on fossil fuels. An OECD study estimated that the global transport sector accounts for 20-25% of carbon emissions, with some 66% of this figure accounted for by emissions in the industrialized countries. Global Trade: Deeply Dysfunctional From the point of view of environmental sustainability, global trade has become deeply dysfunctional. Take agricultural trade. As the International Forum on Globalization has pointed out, the average plate of food eaten in Western industrial food-importing nations is likely to have traveled 1,500 miles from its source. Long-distance travel contributes to the absurd situation wherein “three times more food is used to produce food in the industrial agricultural model than is derived in consuming it.” The WTO has been a central factor in increasing carbon emissions from transport. A study by the OECD done in the mid-nineties estimated that by 2004, the year marking the full implementation of free-trade commitments under the WTO’s Uruguay Round, there would have been an increase in the transport of internationally traded goods by 70% over 1992 levels. This figure, notes the New Economics Foundation, “would make a mockery” of the Kyoto Protocol’s mandatory emissions reduction targets for the industrialized countries. Transportation: More Fossil Intensive than Ever Ocean shipping accounts for nearly 80% of the world’s international trade in goods. The fuel commonly used by ships is a mixture of diesel and low-quality oil known as “Bunker C,” which has high levels of carbon and sulfur. As Jerry Mander and Simon Retallack point out, “If not consumed by ships, it would otherwise be considered a waste product.” Aviation, which has the highest growth rate as a mode of transport, is also the fastest growing source of greenhouse gas emissions, with its consumption of fuel expected to rise by 65% from 1990 levels by 2010, according to one study cited by the New Economics Foundation. Other estimates are more pessimistic, with the Intergovernmental Panel on Climate Change (IPCC) suggesting that fuel consumption by civil aviation is going up at the rate of three percent a year and could rise by nearly 350% from 1992 levels by 2050. Note Mander and Retallack: “Each ton of freight moved by plane uses forty nine times as much energy per kilometer as when it’s moved by ship….A two-minute takeoff by a 747 is equal to 2.4 million lawn mowers running for twenty minutes.” In support of trade expansion and global economic growth, authorities have by and large not taxed aviation fuel as well as marine bunker fuel, which now account for 20% of all emissions in the transport sector. Along with fossil-fuel-intensive air transport, fossil-fuel-intensive road transport has also been favored by the expansion of world trade, instead of modes with less emission intensities like rail and marine traffic. In the European Union, for instance, the focus on building up a road transport network led an OECD study to comment that “the way in which the EU liberalization policy has been implemented has favored the less environment-friendly modes and accelerated the decline of rail and inland waterways.” Decoupling Growth and Energy: a Panacea There has been talk about decoupling trade and growth from energy or shifting from fossil fuels to other, less carbon-intensive energy sources. The reality is that the other energy sources being seriously considered are either dangerous, like nuclear power; with deleterious side-effects, like biofuels’ negative impact on food production; or science fiction as this stage, like carbon sequestration and storage technology. For the foreseeable future, trade expansion and global growth will fall in line with their historical trajectory of being correlated with increased greenhouse gas emissions. A sharp U-turn in consumption and growth in the developed countries and a significant decrease in global trade are unavoidable if we are to have a viable strategy against climate change. This will set the stage for a reduction in greenhouse gas emissions, including from the energy-intensive transportation sector. The outcome of the Doha negotiations will determine whether free trade will intensify or lose momentum. A successful conclusion to Doha will bring us closer to uncontrollable climate change. It will continue what the New Economics Foundation describes as “free trade’s free ride on the global climate.” A derailment of Doha won’t be a sufficient condition to formulate a strategy to contain climate change. But given the likely negative ecological consequences of a successful deal, it’s a necessary condition.

#### Capitalist peace is wrong -- interdependence multiplies the risk of war.

Lucas Hahn 16. Bryant University. April, 2016. Global Economic Expansion and the Prevalence of Militarized Interstate Disputes. <https://digitalcommons.bryant.edu/honors_economics/24/> brett \*MIDs = Militarized Interstate Disputes

3. Neo-Marxist Views on Asymmetrical Trade One of the most supported arguments against the notion that economic expansion promotes peace is that trade, brought about by economic expansion, actually increases MIDs. Many authors have in fact argued that increased economic interdependence and increased trade may have, in some ways, “cheapened war”, and thus made it easier to wage war more frequently (Harrison and Nikolaus 2012). Neo-Marxists and Dependency Theorists argue that the notion that trade promotes peace often depends on the balance of trade between two nations with a trading relationship. If the two nations have a symmetrical trading relationship, then both nations benefit from trade equally and may thus, engage in less conflict just as proposed by many liberal theorists. However, more often than not, the trading relationship between two nations may be asymmetrical. In this case, one nation benefits more than the other. Furthermore, one nation is often more dependent on trade with its partner than the partner is with it. These circumstances can breed violent conflicts (Barbieri and Schneider 1999). Barbieri’s (1996, 40) regression analyses have supported these claims. She found that when dyads (pairs of nation-states) are highly interdependent, they are nearly 25 times more likely to engage in armed conflict than when the dyads are not interdependent. Ultimately, she came to the conclusion that there seems to be a “hurdle effect”. Up to a point trade does seem to promote peace. However, after that point, the balance of trade often becomes disproportionate between two nations and as a result trade promotes conflict.

#### Capitalism is unsustainable and causes extinction -- multiple intertwined crises make collapse inevitable which means its try-or-die -- we got charts.

von Weizsäcker and Wijkman ’17 Ernest Ulrich von Weizsäcker, Professor and Director of the United Nation Centre for Science and Technology for Development, Founder and President of the Wuppertal Institute, Member of the German Bundestag, chairing the Committees on Globalization and the Environment, Dean of the graduate School of Environmental Science and Management at the University of California, appointed Co-Chair of UNEP’s International Resource Panel, Anders Wijkman, chairman of the Swedish Association of Recycling Industries, member of the Board of the Swedish Development Authority (SIDA), appointed chair of the Swedish Cross-Party Committee on Environmental Objectives, member of the European Parliament, Assistant Secretary-General of the United Nations and Policy Director of UNDP, Secretary General of the Swedish Red Cross and Director General of the Swedish Agency for Research Cooperation with Developing Countries, Member of the Swedish Royal Academy of Sciences, the World Future Council and the International Resource Panel, 2017 (“Come On! Capitalism, Short-termism, Population and the Destruction of the Planet – A Report to the Club”, November 11th, Available Online via Subscription to Springer, Accessed 03-20-2018)

1.1 Introduction: The World in Disarray We all know that the world is in crisis. Science tells us that almost half of the top soils on earth have been depleted in the last 150 years1 ; nearly 90% of fish stocks are either overfished or fully fished.2 Climate stability is in real danger (Sects. 1.5 and 3.7); and the earth is now in the sixth mass extinction period in history.3 Perhaps the most accurate account of the ecological situation is the 2012 ‘Imperative to act’,4 launched by all the 18 recipients (till 2012) of the Blue Planet Prize, including Gro Harlem Brundtland, James Hansen, Amory Lovins, James Lovelock and Susan Solomon. Its key message reads, ‘The human ability to do has vastly outstripped the ability to understand. As a result, civilization is faced with a perfect storm of problems, driven by overpopulation, overconsumption by the rich, the use of environmentally malign technologies and gross inequalities’. And further, ‘The rapidly deteriorating biophysical situation is barely recognized by a global society infected by the irrational belief that physical economies can grow forever’. 1.1.1 Different Types of Crisis and a Feeling of Helplessness The crisis is not cyclical but growing. And it is not limited to the nature around us. There are also a social crisis, a political and a cultural crisis, a moral crisis, as well as a crisis of democracy, of ideologies and of the capitalist system. The crisis also consists of deepened poverty in many countries and the loss of jobs for a considerable part of the population worldwide. Billions of people have reached a state of mind where they don’t trust their government anymore.5 Seen from a geographic point of view, symptoms of crisis are found nearly everywhere. The ‘Arab Spring’ was followed by a series of wars and civil wars, serious human rights violations and many millions of refugees. The internal situation is not better in Eritrea, South Sudan, Somalia, Yemen or Honduras. Venezuela and Argentina, once among the richer states of the world, face huge economic challenges, and neighbouring Brazil has gone through many years of recession and political turmoil. Russia and several East European countries are struggling with major economic and political problems in their post-communist phase. Japan finds it difficult to overcome decadelong stagnation, and to deal with the 2011 tsunami and ensuing nuclear disaster. And the temporary economic upswing several African countries have enjoyed lost its dynamism as soon as the prices of mineral resources collapsed, and partly due to very unusual droughts. Land grabbing is plaguing much of Africa, but also other parts of the world, leading to involuntary dislocations of millions of people and the related problems with refugees both within countries and abroad.6 The response of governments has been concentrated, at worst, on managing their own political image, and at best to treat the symptoms of the crisis, not the cause. The problem is that the political class in the whole world is strongly influenced by investors and by powerful private companies. This indicates that the current crisis is also a crisis of global capitalism. Since the 1980s, capitalism has moved from furthering the economic development of countries, regions and the world towards maximizing profits, and then to a large extent profits from speculation. In addition, the capitalism unleashed since 1980 in the Anglo-Saxon world, and since 1990 worldwide, is mainly financial. This trend was supported by excessive deregulation and liberalization of the economy (see Sect. 2.4). The term ‘shareholder value’ popped up in the business pages of the media worldwide, as if that was now the new epiphany and guardrail for all economic action. In reality, it served to narrow business down to short-term gains, often at the expense of social and ecological values. The myth of shareholder value has been effectively debunked in a recent book by Lynn Stout.7 A different, if related, feature of ‘disarray’ is the rise of aggressive, mostly rightwing movements against globalization in OECD countries, often referred to as populism. These have become overt through Brexit and the Trump victory in the United States. As Fareed Zakaria observes, ‘Trump is part of a broad populist

Chart, line chart

Description automatically generated

upsurge running through the Western world. … In most (countries), populism remains an opposition movement, although one that is growing in strength; in others, such as Hungary, it is now the reigning ideology’.8 This phenomenon of right-wing populism can be explained to an extent by the ‘trunk valley of the elephant curve’ (Fig. 1.1) 9 showing the decline of developed world middle classes, during a 20-year period. While more than half of the world’s population was enjoying over 60% income rises, OECD’s middle classes suffered losses caused mainly by the deindustrialization and job losses in major parts of the United States, Britain and other countries. In the United States, the median income increased by a meagre 1.2% since 1979. The stunning income growth on the left-hand side of the curve, the ‘back of the elephant’, lifting some two billion people out of poverty, was caused mainly by China’s and some other countries’ economic success. What remains invisible on the picture is the far end of ‘the trunk of the elephant’: The richest 1% of the world and, more revolting, the richest eight persons of the world now own as much wealth as the poorest half of the world population combined, a figure publicized by Oxfam during the 2017 World Economic Forum.10 The ‘elephant curve’ gives an incomplete picture for a second reason. The Oxford Poverty and Human Development Initiative (OPHI) has proposed a Multidimensional Poverty Index (MPI) going beyond just income and including ten indicators around health, education and living standards. Using that MPI, OPHI counts 1.6 billion people living in ‘multidimensional poverty’ in 2016 – nearly twice as many as the number of people living in extreme poverty measured by income alone.11 Thirdly, the interpretation of the curve requires an analysis of the people in each percentile group. In fact, they tend to move. And the curve does not distinguish those in Russia and East European countries who lost much of their income after 1990 from those in Detroit or middle England who, for very different reasons, also were among the losers.12 Another fact cannot be seen in the picture: the massive shift of money and income from the manufacturing and trade sectors to the financial sector.13 Bruce Bartlett, a senior policy advisor to both the Reagan and Bush administrations, argues that this ‘financialization’ of the economy is the cause of income inequality, falling wages and the poor performance. David Stockman, Reagan’s director of the Office of Management and Budget, agrees, describing our current situation as ‘corrosive financialization that has turned the economy into a giant casino since the 1970s’.14 Populist politicians in the OECD countries see themselves as speaking for the forgotten ‘ordinary’ people and for genuine patriotism, but they tend to fight and antagonize the people representing democratic institutions – what an irony! For the European Union (EU), the strongest trigger for populism has been the millions of refugees who came or would like to come to Europe from the Near East, from Afghanistan and from Africa. Even the most generous European countries have reached their own assumed limits for receiving these masses of refugees. The EU institutions were too weak (not too powerful, as they are depicted by the new nationalists) to deal with the ‘refugee crisis’, resulting eventually in an identity crisis in the EU. Once a success story of an entity ensuring peace and economic development, the EU has lost some of its unifying narrative. The populist right-wing movements or parties see and criticize the EU as the culprit for all kinds of undesired events. The irony is that continuing the success story would require more, not less, powers for the Union. The Union should be entrusted with border protection, a well-funded common asylum and refugee policy to deal with the refugee crisis and maintain the advantages of the Schengen agreement. And for the re-stabilization of the Euro, the EU or at least the Euro zone needs a common fiscal policy, as the new French President Emmanuel Macron is proposing. But it is these very measures of which nationalist populists are most afraid. The EU in its present form is not without shortcomings. Free market principles have come to dominate EU policymaking, leading to a subordination of other policies, like environment. Notably the UK wanted that priority, as it preferred to see the EU chiefly as a union for mutual trade. And the austerity policies pursued have blocked many benign investments and led to unnecessary suffering among tens of millions of Europeans. Such shortcomings, however, should never be used to put in question the overall objectives of the EU – a union of peace, the rule of law, human rights, cultural understanding and sustainability. Addressing the global crisis of democracy, the German Bertelsmann Foundation has published a 3000-page empirical report on progress (or lack thereof) on democracy and a social market economy, as measured by the Bertelsmann Transformation Index (BTI).15 Over the last few years, the report sees a consistent decay of such parameters as civil rights, free and fair elections, freedom of opinion and of press, freedom of assembly and separation of powers. Within the same time frame, the number of countries in which authoritarian, mostly religious, dogmas influence political decision making rose from 22% to 33%. That report was published before the assaults on democracy and civil rights that occurred in summer 2016 in Turkey or the Philippines. Symptoms of tyranny are spreading, including in some of the countries with a solid tradition of freedom and democracy.16 Let us briefly turn to a different kind of crisis. Well, not exactly a crisis but an unpleasant feature in an otherwise fruitful communication tool, the ‘social media’. Aside from being practical and useful for everyday arrangements and exchange of news and reasonable opinions, social media also have become vehicles for enhancing conflicts and vilification of mostly innocent individuals, and for spreading ‘post truth’ nonsense. Much of the contents of social media political conversation is selfenhancing political rubbish, as those media serve as ‘echo chambers’ for networks of like-minded frustrated citizens.17 An empirical study from China found that anger and indignation are the emotions that are most likely to get viral in the social media, meaning they are multiplied faster and stronger than other emotions.18 The Internet and the social media are also vehicles for ‘bots’ (short for robots) that can disrupt or destroy messages, multiply nonsense and create all kinds of mischief. There are dozens of types of malicious bots (and botnets) to harvest email addresses, to grab content of websites and reuse it without permission, to spread viruses and worms, to buy up good seats for entertainment events, to increase views for YouTube videos or to increase traffic counts in order to extract money from advertisers. A more frightening cause of disarray relates to terrorism. In earlier times, humanity’s violent conflicts occurred mostly between different countries. In recent times, systemic and at least partly religious conflicts prevail, using terror attacks with the explicit intention of making people feel insecure. During much of the twentieth century, religions remained quiet, non-aggressive and geographically confined to rather stable territories. This no longer is true. Partly because of globalized populations moving or being forced to leave their home territories, some factions of Islam have expanded geographically and are claiming strong influence over national states, for example, attacking countries like France with its tradition of laicism that does not permit religion to dominate politics. What tends to be underrepresented in the media is the positive role of religions. In Christian-dominated Europe, liberal and tolerant religion became part of the European identity a century after the Enlightenment successfully discredited the earlier doctrinaire, authoritarian and colonialist-missionary manifestations of the faith. During the Cold War, Christian goals of social cohesion helped build the system of ‘Western values’, often described as the social welfare state, or the ‘social market economy’ (for its partial demise, see Sect. 2.4). With a view towards leading Islam into an equally benign and co-operative social role, some Islamic scholars, such as Syrian born Bassam Tibi, call on Muslims in Europe to integrate into democratic society.19 Tibi, however, is not popular among radical Muslims, to put it mildly. But to understand the radicalization of Islam, one must not underestimate the role played by the West, in particular the United States, in interfering with Near Eastern states. Some would say that the troublesome situations mentioned so far, the recurring topics of media headlines, are only the surface of our world’s ‘disarray’. Deeper and more systemic problems include the breath-taking speed of technological development that may very easily run out of control. One trend is digitization that potentially threatens millions of jobs (see Sect. 1.11.4). Another trend or development can be observed in the biological sciences and technologies. The enormous acceleration of genetic engineering through the CRISPR-Cas9 technology20 is causing fears of monster creation or the extinction of species or varieties not seen as valuable under human utilitarian criteria. Generally, a non-specific feeling is spreading that ‘progress’ has scary sides and that the genie may already have left the bottle (see Sect. 1.11.3). No doubt there is a need to analyse and understand the symptoms and roots of the variety of crises, political, economic, social, technological and environmental. It is also important to recognize the extent to which people perceive the various phenomena of disarray and feel disoriented, and to recognize that the reality and the feelings of disarray have a moral and even religious dimension. 1.1.2 Financialization: A Phenomenon of Disarray An important part of the disorientation relates to financial markets. Historians will look back at the last 30 years with concern, when looking at the explosion in bank balance sheets, backed up by declining levels of equity and massive borrowing. One of the results was a temporary private-sector-led boom. The other was a massive increase in the world’s financial sector (finance, insurance, real estate – FIRE), often called financialization, and subsequently the financial crisis of 2008–2009. Excessive risk-taking developed into a crisis that was close to bringing the whole financial system to a halt. When the bubble burst, many governments were forced to step in with broad support programmes. Governments caught by the new mind-set (see Sect. 2.4) were intimately involved in all of this. True, there are many examples of serious malpractices within the private financial sector. But had it not been for the systematic deregulation of the banks by governments, with the purpose of stimulating economic growth by issuing more debt, the situation would have been radically different. The causes behind the crisis were many and varied: – Excessive lending by the banking industry – Lack of action on the part of regulators and central banks to stop (i) excessive lending, (ii) the spread of exotic financial instruments (synthetic assets and bonds, collateralized mortgage obligations/CMOs, structured debt issues, etc.) and (iii) pure speculative transactions – Opaque tax havens, and the absence of a binding legal framework that is accepted and implemented by the international community, in general, and the major jurisdictions and financial centres – Securitization and distribution by investment banks and other financial actors of mortgage-related assets and investment vehicles transferring the credit risk from the original lender to the ultimate bondholders – Failure by some rating agencies and auditing firms to properly assess and report the inherent risks posed by many of the financial products A deeper analysis is presented by economists Anat Admati and Martin Hellwig21 about the main causes behind the financial crisis. Western banks borrowed far too much with far too little equity in their balance sheets to act as a buffer if things went wrong in their business – from trading in the multitrillion-dollar derivatives markets to often reckless lending on real estate. In the decades following the Second World War, banks operated with between 20% and 30% of their liabilities as equity. By 2008, that had shrunk to just 3%. Banks obviously believed that they had invented instruments that removed the risk, allowing them to run their banks with a tenth of the buffer they had before. It proved to be very unrealistic. But they counted with the state to underwrite their risks. Bankers have enriched themselves spectacularly in the process. They made themselves ‘too big to fail’ – and too big to jail. The 2008 financial crisis was mostly caused by that irresponsible greed.22 Yet, in 2009, not only did bankers avoid criminal prosecutions and receive hundreds of billions in government bailouts, but some still paid themselves record bonuses. At the same time, almost nine million households in the United States had to abandon their homes when the value of their houses plummeted and they could no longer service the adjustable-rate mortgages – the so-called foreclosure crisis.23 Financialization refers to the dominance of the financial sector in the global economy and the tendency for accumulated profits (and leverage) to flow into real estate and other speculative investment. Debt is an intrinsic element in this process. In the United States, for example, both household debt and private sector debt more than doubled relative to GDP between 1980 and 2007.24 The same is true for most OECD countries. At the same time, ‘the value of financial assets grew from four times GDP in 1980 to ten times GDP in 2007 and the finance sector’s share of corporate profits grew from about 10% in the early 1980s to almost 40% by 2006’.25 Adair Turner, chair of the UK’s Financial Services Authority in the years following the 2007–2008 crisis, regards unchecked private credit creation as the key system fault that led to that crisis with its devastating consequences.26 From this follows that the financial sector constitutes a significant and increasing risk factor in the economy. The degree of financialization varies from country to country but the increase in the power of finance is general. The current finance sector evolved in the context of the deregulation that gathered pace from the late 1970s and expanded dramatically after the 1999 removal of the separation between commercial and investment banking in the United States.27 This barrier had been put in place in 1933 by the Roosevelt administration in response to the Wall Street Crash of 1929, when a period of rampant credit creation and financial speculation collapsed. Similar speculation preceded the crisis of 2007–2008: The face value of financial products reached US$640 trillion in September 2008, 14 times the GDP of all the countries on earth.28 Lietaer et al.29 compare speculation with ordinary money transfers paying for goods and services: ‘In 2010, the volume of foreign exchange transactions reached $4 trillion per day’, which does not even include derivatives. In comparison, ‘one day’s exports or imports of all goods and services in the world amount to about 2% of those $4 trillion’. Transactions not paying for goods and services, almost by definition are speculative. Such financial products and transactions, the authors continue, lead regularly to monetary crashes, sovereign debt crises and systemic crashes with an average of more than ten countries in crisis every year. One of the consequences of this development is that a significant part of economic growth has been distributed to the wealthy, as mentioned with the new Oxfam figures in the previous subchapter. Practices within the financial sector demonstrate a disregard for the impact they have on both people and the planet. That includes a distinct short-termism, the ratio of banks’ reserves to their loans, the ratio of banks’ lending that support the real economy versus speculation in property and derivatives, unchecked credit creation – in fact money creation – and the failure to account for long-term climate and environmental risks. In the words of Otto Scharmer at MIT,30 ‘We have a system that accumulates oversupply of money in areas that produce high financial and low environmental and social returns, while at the same an undersupply of money in areas that serve important societal investment needs’. The failure to account for environmental risks means that the pressure on already scarce natural resources accelerates – trees are felled, waterways polluted, wetlands drained and the exploitation of oil, gas and coal accelerating, as long as there is demand. It also means that huge savings, among them pension funds, are locked into investments in fossil-based assets. Such assets are increasingly looked upon as high-risk assets (see Sect. 3.4).

#### Vote negative for proletarian internationalism -- only an organized global revolutionary struggle can overcome the destruction of capitalism.

Anastasi et al, 18 (editorial collective of Viewpoint Magazine, a militant research collective working to dialectically bring theory and practice into dialogue by studying cycles of struggle. Alphabetically, members of the editorial collective are as follows: Andrew Anastasi, graduate student in Sociology at CUNY; Cinzia Arruzza, Associate Professor of Philosophy at the New School for Social Research; Robert Cavooris, UC Santa Cruz graduate student and union representative, History of Consciousness Department; Maya Andrea Gonzalez, communist and revolutionary feminist in the Bay Area, graduate student in the Department of History of Consciousness at UC Santa Cruz; Asad Haider, Assistant Professor of Philosophy @ The New School, founding editor of Viewpoint Magazine, PhD in History of Consciousness Department @ UC Santa Cruz; Shuja Haider, widely-published writer and musician based in Brooklyn; Bue Rübner Hansen, writer and activist researcher in the Britain, Barcelona, and in migrant and refugee solidarity movements, PhD from Queen Mary University; Patrick King, graduate student at UC Santa Cruz; Rosa Lee, communist organizer and member of the Viewpoint editorial collective; Ben Mabie, managing editor at Viewpoint and editorial assistant at Verso Books, UCSC graduate; Sarah Mason, member of the Viewpoint editorial collective; Liz Mason-Deese, Assistant Professor, Department of Geography and Geoinformation Science, George Mason University; Dave Mesing, PhD student in Philosophy @ Villanova University; Magally Miranda-Alcazar, Eugene Cota-Robles Fellow and a Ford Foundation Predoctoral Fellow, PhD student in Chicana/o Studies @ UCLA; B.A. from the University of California, Santa Cruz (magna cum laude) with a double major in Community Studies and Feminist Studies, and has been published in The Nation, Verso and the New Left Review; Salar Mohandesi, Assistant Professor of History @ Bowdoin; Gavin Mueller, Lecturer in Media Studies at the University of Amsterdam, former contributing editor @ Jacobin; Evan Calder Williams, writer, translater, and artist, teaches theory at the Center for Curatorial Studies at Bard College and film production at Cooper Union, PhD in Literature from the University of California Santa Cruz and was a Fulbright Fellow in Italy for his research on cinema, industry, and revolt. “Internationalism against Imperialism,” *Viewpoint Magazine*, Issue 6, February 1, 2018, <https://www.viewpointmag.com/2018/02/01/internationalism-against-imperialism/>)

The challenge of reactivating an effective proletarian internationalism is made even more urgent by the aggressive rise of right-wing nationalisms, which have taken a range of organizational and ideological guises. The clarified ideological form of this rightward shift is an emboldened “possessive nationalism” in the North, which revolves around restrictive immigration and trade policies, as responses to the perceived erosion of territorial logics of sovereignty, and the hybridization of the ethno-national community.10 Any prolonged combat against these nativist impulses – especially as they seep into social-democratic or left-liberal parties in Europe and the United States – will need to reinforce the link between migration and imperialism, the former in many ways constituting the reflux of the latter. Here we might center the rich legacy and actuality of migrant struggles for communist politics, and how questions of mobility, control, and dispossession are now at the core of imperialist dynamics. The political and social, informal and formal spaces of migration remain an open field for investigation. As Etienne Balibar noted over 40 years ago, “the concrete knowledge of the causes and effects of immigration is a two-way guiding thread towards an understanding of imperialism,” a methodological linkage which “renders internationalism, more than ever, the very condition of struggles for workers’ liberation.”11 This raises the practical necessity of reconsidering the tactical repertoire and strategic horizons of anti-imperialism. The nearly two-decades-long “War on Terror” – a euphemism for a war on human welfare in the Middle East and a war against Muslims at home – has proven to be a difficult nub for anti-war and anti-militarist activism in “the belly of the beast,” particularly as U.S. violence, amidst ever-shallower domestic hegemony, takes forms other than that of U.S. boots on the ground. The fading – or destruction – of the anti-war movement after 2005, following massive demonstrations against the invasion of Iraq which featured considerable grassroots mobilization, is a critical episode to reflect upon. The ubiquity of manned and unmanned aerial bombardment, the diffuse and often cloaked nature of counterinsurgency operations, the multiplication of U.S. proxies, and dense financial ties have rendered the military conflicts of U.S. empire, perhaps the most visible manifestation of imperialism, an asymmetrical yet constant presence. Any sustained fight against it must be coordinated around several fronts. Recent experiences of mass protest show that a powerful anti-war movement, if it is to reappear, would do so in an altered shape and in close relation to other insurgent forces in society, an extension of their discursive and strategic reach. The high level of organized resistance to militarized border security and repressive immigration policies, the environmentalist/anti-extractivist campaigns around Standing Rock and elsewhere, and the nascent coalitions and activist milieus that have been fortified through the International Women’s Strike initiatives (resonant with calls from Latin America for a new feminist international) indicate a real potential to build a “popular anti-imperialism” from grounded social struggles, connecting the sites of contestation across neo-colonial and imperial frontiers. One can see how this changes the aims and targets of alter-globalization movements, exemplified in the militancy of summit-hopping demos that directly confront leading economic and financial bodies, or in the parallel institution-building and transnational networking of civil society organizations involved in the World Social Forums.12 A more adequate approach to questions of coordination and solidarity across borders would have to probe how political organization is tied to material practices of translation, and recognize that even localized concerns often involve the commonalities and divisions of the global labor force.13 The mutations of class struggle, where the wage-earning proletariat has given way to more diverse social alliances and associations of what Göran Therborn calls the “plebeian strata” or “popular classes,” has provided glimpses of what anti-imperialist mobilization could look like: new strategies of threading upsurges of disruption, combination, and antagonism as they extend over an unstable terrain.14 Today, it is necessary to re-situate the concept and question of imperialism. We agree with Lenin when we recognize that no revolution, even a national one, is possible without grasping the effects of imperialism on any local articulation of the working class. And we further agree that, of course, no national revolution would be sufficient for the goal of communism. In short, we see imperialism as both an obstacle to and enemy of internationalism and we in turn view internationalism as a position to be composed in working class struggle itself. Thus, at the risk of simplifying our approach, we propose that to examine imperialism today is to bring it into the realm of class composition. This can involve no disavowal of the complicated history of Marxism and popular struggle with regard to imperialism, nor a simple repetition of any one of its moments. In our sixth issue of Viewpoint, we instead seek out the possibility of an encounter, bringing together historical accounts, artefacts of struggle, and theoretical interventions past and present. Thus we neither “endorse” all of the positions represented here nor reject those that might be absent from this issue, which is a situated engagement with the problem of opposing imperialism from within American empire; we are proud to offer these contributions as material for the long-term work of thinking and struggling against imperialism in the 21st century.

## DA

#### Eliminating CRISPR Patents causes biohacking.

Zettler 19, Patricia J., Christi J. Guerrini, and Jacob S. Sherkow. "Regulating genetic biohacking." Science 365.6448 (2019): 34-36. (Ohio State University Moritz School of Law)//Elmer

Genetic **biohacking** is also potentially **subject to U.S. laws that are enforced by private** rather than government **actors**. These may fill some of the gaps in public regulators’ ambit (9). **Patent owners**, for example, **can impose ethical restrictions on licensees,** such as the Broad Institute’s licenses for its CRISPR patents to Bayer (formerly Monsanto), **with conditions that** Bayer **avoid research activities that are potentially harmful to public health**, **including** **tobacco research and germline editing** (10). **Such license restrictions can**—and should—**be used to police commercial manufacturers of genome-editing kits and reagents popular in biohacking communities**, just as they have previously been used to prevent activities that pose national security, environmental, or public health risks (11). Even without a license in place, **patent owners can enforce restrictions through threats of patent infringement litigation against any recalcitrant biohackers or manufacturers of biohacking products**. A similar model was proposed as an attempt to restrict the use of “gene drive technology”—inheritable versions of CRISPR designed to drive a specific allele through generations of a population (12). Beyond patents, people injured by genetic biohacking materials could potentially bring tort law claims against biohackers and component suppliers to seek compensation for their injuries. A person injured while using a DIY CRISPR kit, for example, would likely be able to sue the seller of the kit —a potentially strong deterrent to marketers of unsafe biohacking materials.

#### Expanded Biohacking risks Bioterrorism.

Wikswo 14, J., S. Hummel, and V. Quaranta. "The Biohacker: A Threat to National Security." CTC Sentinel 7.1 (2014). (a biological physicist at Vanderbilt University. He was born in Lynchburg, Virginia, United States. Wikswo is noted for his work on biomagnetism and cardiac electrophysiology.)//Elmer

The **ability of non-scientists to create** and deploy **a biological weapon** highlights the emergence of **a new threat, the “biohacker.”** “Biohacking” is not necessarily malicious and could be as innocent as a beer enthusiast altering yeast to create a better brew. Yet the **same technology** **used by** a benign **biohacker** **could** easily **be transformed into** a tool for the disgruntled and disenfranchised12 to modify existing or emerging **biological warfare agents** **and employ them as bioterrorism**. A 2005 Washington Post article by Steve Coll and Susan Glasser presciently stated that “one can find on the web how to inject animals, like rats, with pneumonic plague and how to extract microbes from infected blood…and how to dry them so that they can be used with an aerosol delivery system, and thus how to make a biological weapon. If this information is readily available to all, is it possible to keep a determined terrorist from getting his hands on it?”13 This article argues that the biohacker is a real and existing threat by examining evasive biohacking strategies and limitations of current detection methods. The article finds that more active measures are required to stem the growing, long-term threat of modified BW agents employed by individuals. The **biohacker is** not only **a credible threat**, but also one that can be checked through improved detection and by disrupting BW agent delivery methods.

#### Bioterrorism causes Extinction – overcomes any conventional defense.

Walsh 19, Bryan. End Times: A Brief Guide to the End of the World. Hachette Books, 2019. (Future Correspondent for Axios, Editor of the Science and Technology Publication OneZero, Former Senior and International Editor at Time Magazine, BA from Princeton University)//Elmer

I’ve lived through disease outbreaks, and in the previous chapter I showed just how unprepared we are to face a widespread pandemic of flu or another new pathogen like SARS. But a deliberate outbreak caused by an engineered pathogen would be far worse. We would face the same agonizing decisions that must be made during a natural pandemic: whether to ban travel from affected regions, how to keep overburdened hospitals working as the rolls of the sick grew, how to accelerate the development and distribution of vaccines and drugs. To that dire list add the terror that would spread once it became clear that the death and disease in our midst was not the random work of nature, but a deliberate act of malice. We’re scared of disease outbreaks and we’re scared of terrorism—put them together and you have a formula for chaos. As deadly and as disruptive as a conventional bioterror incident would be, an attack that employed existing pathogens could only spread so far, limited by the same laws of evolution that circumscribe natural disease outbreaks. But a virus engineered in a lab to break those laws could spread faster and kill quicker than anything that would emerge out of nature. It can be designed to evade medical countermeasures, frustrating doctors’ attempts to diagnose cases and treat patients. If health officials manage to stamp out the outbreak, it could be reintroduced into the public again and again. It could, with the right mix of genetic traits, even wipe us off the planet, making engineered viruses a genuine existential threat. And such an attack may not even be that difficult to carry out. Thanks to advances in biotechnology that have rapidly reduced the skill level and funding needed to perform gene editing and engineering, what might have once required the work of an army of virologists employed by a nation-state could soon be done by a handful of talented and trained individuals. Or maybe just one. When Melinda Gates was asked at the South by Southwest conference in 2018 to identify what she saw as the biggest threat facing the world over the next decade, she didn’t hesitate: “A bioterrorism event. Definitely.”2 She’s far from alone. In 2016, President Obama’s director of national intelligence James Clapper identified CRISPR as a “weapon of mass destruction,” a category usually reserved for known nightmares like nuclear bombs and chemical weapons. A 2018 report from the National Academies of Sciences concluded that biotechnology had rewritten what was possible in creating new weapons, while also increasing the range of people capable of carrying out such attacks.3 That’s a fatal combination, one that plausibly threatens the future of humanity like nothing else. “The existential threat that would be most available for someone, if they felt like doing something, would be a bioweapon,” said Eric Klien, founder of the Lifeboat Foundation, a nonprofit dedicated to helping humanity survive existential risks. “It would not be hard for a small group of people, maybe even just two or three people, to kill a hundred million people using a bioweapon. There are probably a million people currently on the planet who would have the technical knowledge to pull this off. It’s actually surprising that it hasn’t happened yet.”

## Case

### Innovation

#### Top level – vote negative on vagueness. No card in the 1AC clarifies how much the IP protections for genomic medicines are modified. This means we’re in the dark as to what they actually do.

#### Their Stramiello ev is NUQ – it says the conflicts will arise in 2018 – if there has been any conflicts they have already happened

#### Research is coordinated through public univerisites – no reason IP blocks them.

#### No IP litigation – scientists have had situation in which there has been an influx of new patents and still weren’t scared of innovation

#### Uncertainty has no impact – companies always face uncertainty when making big investments in new areas but still decide to invest.

#### Globalization huge alt cause to disease.

Margaret Hamburg, 2008. MD, FDA Commissioner. "Germs go global", http://healthyamericans.org/assets/files/GermsGoGlobal.pdf)

Globalization, the worldwide movement toward economic, financial, trade, and communications integration, has impacted public health significantly. Technology and economic interdependence allow diseases to spread globally at rapid speeds. Experts believe that the increase in international travel and commerce, including the increasingly global nature of food handling, processing, and sales contribute to the spread of emerging infectious diseases.47 Increased global trade has also brought more and more people into contact with zoonosis -diseases that originated in animals before jumping to humans. For example, in 2003, the monkeypox virus entered the U.S. through imported Gambian giant rats sold in the nation’s under-regulated exotic pet trade. The rats infected pet prairie dogs, which passed the virus along to humans.48 International smuggling of birds, brought into the U.S. without undergoing inspection and/or quarantine, is of particular concern to public health experts who worry that it may be a pathway for the H5N1 “bird flu” virus to enter the country.Lower cost and efficient means of international transportation allow people to travel to more remote places and potential exposure to more infectious diseases. And the close proximity of passengers on passenger planes, trains, and cruise ships over the course of many hours puts people at risk for higher levels of exposure. If a person contracts a disease abroad, their symptoms may not emerge until they return home, having exposed others to the infection during their travels. In addition, planes and ships can themselves become breeding grounds for infectious diseases.The 2002-2003 SARS outbreak spread quickly around the globe due to international travel. SARS is caused by a new strain of coronavirus, the same family of viruses that frequently cause the common cold. This contagious and sometimes fatal respirator y illness first appeared in China in November 2002. Within 6 weeks, SARS had spread worldwide, transmitted around the globe by unsuspecting travelers. According to CDC, 8,098 people were infected and 774 died of the disease.49

SARS represented the first severe, newly emergent infectious disease of the 21st century.50 It illustrated just how quickly infection can spread in a highly mobile and interconnected world. SARS was contained and controlled because public health authorities in the communities most affected mounted a rapid and effective response.SARS also demonstrated the economic consequences of an emerging infectious disease in closely interdependent and highly mobile world. Apart from the direct costs of intensive medical care and disease control interventions, SARS caused widespread social disruption and economic losses. Schools, hospitals, and some borders were closed and thousands of people were placed in quarantine. International travel to affected areas fell sharply by 50 70 percent. Hotel occupancy dropped by more than 60 percent. Businesses, particularly in tourism-related areas, failed. According to a study by Morgan Stanley, the Asia-Pacific region’s economy lost nearly $40 billion due to SARS.51 The World Bank found that the East Asian region’s GDP fell by 2 percent in the second quarter of 2003.52 Toronto experienced a 13.4 percent drop in tourism in 2003.53

#### AMR won’t risk extinction---squo solves, but the impact’s inevitable

Biba 17 – New York City–based freelance science journalist [Erin, 6/8/2017, “How we can stop antibiotic resistance”, BBC, <http://www.bbc.com/future/story/20170607-how-we-can-stop-antibiotic-resistance>] AMarb

First, the entire world needs to get on board. Two years ago this essentially happened when member states of the WHO agreed to accept a Global Action Plan – by then, antibiotic resistance was a problem that had already been on the radar for many decades. The plan lays out extensive solutions and best practices that all countries can take to reduce resistance. “That’s historic,” says Sprenger. Before then, he says, the only people actively discussing how to reduce resistance were people within medical circles, for the most part. "95% of the worldwide population is now living in a country where they have developed a national action plan. All these countries have increased activities in education, training, and prevention control.” In the last couple of decades we’ve seen decreases in prescription to children in the US – Dr Katherine Fleming-Dutra Then, last year, the UN addressed the issue before the General Assembly – only the fourth time in history that a health issue was discussed there. And just this May the G20 leaders signed a declaration on global health that included tackling antibiotic resistance. So it’s definitely a grand challenge that world leaders are taking seriously. Much of the WHO action plan focuses on hospital stewardship and supervision. The CDC is currently working closely with American hospitals to provide guidelines and education for the safe and reasonable prescription of antibiotics. “We have made some progress,” says Dr Katherine Fleming-Dutra, an epidemiologist at the CDC. “In the last couple of decades we’ve seen decreases in prescription to children in the US. We have seen less progress in adults. The rate in adults has been relatively stable.” Once hospitals and physicians get on board with reducing prescriptions the next step is to change regulations around agriculture. Ten years ago the European Union banned antibiotics as growth promoters. And just this January, the US Food and Drug Administration removed growth from the indicated use of antibiotics on drug labelling. According to Dr William Flynn, deputy director for science policy at FDA’s Center for Veterinary Medicine, “There was a real recognition that this was something [farmers] needed to take seriously and respond to. We’re encouraged by the fact that they were engaging and working with us to find ways to make it work.” But other countries need to follow suit – as evidenced by the recent revelations about antibiotic resistance coming out of China. One of the most important steps in tackling resistance is tracking it. The CDC have set up a system called the National Antimicrobial Monitoring System (NARMS). “Surveillance for antibiotic resistant bacteria is a big part of our mission,” says Dr Jean Patel, deputy director of the office of Antimicrobial Resistance at the CDC. “We do this to measure the burden of infection and also characterise the types of resistance we see. This helps us strategise how best to prevent resistance.” We can only really slow the development of resistance. We’re not going to stop it completely. Even appropriate use of antibiotics does contribute to resistance – Amanda Jezek, Vice President for Public Policy and Government Relations, Infectious Diseases Society of America The CDC funds state health departments around the US (and coordinates with laboratories worldwide) to maintain a network of antibiotic resistant bacteria data and samples. Says Patel: “We can use this to give us national estimates of infection rates to see how bacteria are changing, test new drugs against bacteria, and we also have used the bacteria we collect through this to help with vaccine development.” Though, it should be noted, the continued success of the programme could be in jeopardy as US President Donald Trump’s proposed budget suggests cutting funds to the CDC by 17% (or $1.2 billion). But there are also some non-traditional methods being attempted. Emory University in Atlanta, Georgia, has established a unique Antibiotic Resistance Center. One of its main goals is to build diagnostic tests using mutated bacteria collected by the national surveillance system and physicians in their own clinic that can spot resistant bacteria. “The goal is to have scientists, clinicians, and epidemiologists all working together to address this issue. That’s something that hasn’t traditionally happened. There has been division between what the scientists and clinicians are doing,” says the centre’s director David Weiss. “I’m not a doctor. I need to know from the clinicians a lot of what they’re seeing on the front lines to help guide our research to be as relevant as possible.” A comprehensive, collaborative approach could work: last year, the National Health Service of England announced that in 2015, antibiotic prescribing reduced by 5.3% compared to 2014. Public Health England says that more responsible prescribing is key: it says that it advised the NHS in 2015 on the development of better practices that aim to slash prescriptions by 10% from 2013 to 2014 levels. Lastly, there need to be incentives that encourage the development of new antibiotics. The US National Institute of Health and the Biomedical Advanced Research and Development Authority have set up a biopharmaceutical accelerator called CARB-X. The fund is allotting $48 million to support antibiotic drug discovery projects. “They work with companies in the very early discovery stages to give them funding and technical support to get to the point that they have a product they can do clinical trials with,” says IDSA’s Jezek. Along those same lines, the IDSA is also currently working to develop legislation that would provide funding for clinical trials so that companies can avoid those hefty costs and stand a chance of making a profit from new antibiotics. With all of these programmes working together, and similar efforts taking place around the world, there is a lot of hope that humanity will manage to get a handle on the problem. Still, “we can only really slow the development of resistance. We’re not going to stop it completely,” says Jezek. “Even appropriate use of antibiotics does contribute to resistance.” And that means the challenge will always be immense. As long as there are humans and those humans carry and transmit disease – which they will – the entire world will have to continue fighting for resistance.

### WTO credibility

Clary

#### Tønnesson is wrong.

Clary 15 – Christopher Clary, PhD in Political Science from MIT, M.A. in National Security Affairs, Postdoctoral Fellow, Watson Institute for International Studies, Brown University, 2015 (“Economic Stress and International Cooperation: Evidence from International Rivalries,” April 25th, Available Online via SSRN Subscription, AIvackovic)

Do economic downturns generate pressure for diversionary conflict?

Or might downturns encourage austerity and economizing behavior in foreign policy? This paper provides new evidence that economic stress is associated with conciliatory policies between strategic rivals. For states that view each other as military threats, the biggest step possible toward bilateral cooperation is to terminate the rivalry by taking political steps to manage the competition. Drawing on data from 109 distinct rival dyads since 19i9 50, 67 of which terminated, the evidence suggests rivalries were approximately twice as likely to terminate during economic downturns than they were during periods of economic normalcy. This is true controlling for all of the main alternative explanations for peaceful relations between foes (democratic status, nuclear weapons possession, capability imbalance, common enemies, and international systemic changes), as well as many other possible confounding variables. This research questions existing theories claiming that economic downturns are associated with diversionary war, and instead argues that in certain circumstances peace may result from economic troubles. I define a rivalry as the perception by national elites of two states that the other state possesses conflicting interests and presents a military threat of sufficient severity that future military conflict is likely. Rivalry termination is the transition from a state of rivalry to one where conflicts of interest are not viewed as being so severe as to provoke interstate conflict and/or where a mutual recognition of the imbalance in military capabilities makes conflict-causing bargaining failures unlikely. In other words, rivalries terminate when the elites assess that the risks of military conflict between rivals has been reduced dramatically. This definition draws on a growing quantitative literature most closely associated with the research programs of William Thompson, J. Joseph Hewitt, and James P. Klein, Gary Goertz, and Paul F. Diehl.1 My definition conforms to that of William Thompson. In work with Karen Rasler, they define rivalries as situations in which “[b]oth actors view each other as a significant political-military threat and, therefore, an enemy.”2 In other work, Thompson writing with Michael Colaresi, explains further: The presumption is that decisionmakers explicitly identify who they think are their foreign enemies. They orient their military preparations and foreign policies toward meeting their threats. They assure their constituents that they will not let their adversaries take advantage. Usually, these activities are done in public. Hence, we should be able to follow the explicit cues in decisionmaker utterances and writings, as well as in the descriptive political histories written about the foreign policies of specific countries.3 Drawing from available records and histories, Thompson and David Dreyer have generated a universe of strategic rivalries from 1494 to 2010 that serves as the basis for this project’s empirical analysis.4 This project measures rivalry termination as occurring on the last year that Thompson and Dreyer record the existence of a rivalry.

Economic crises lead to conciliatory behavior through five primary channels. (1) Economic crises lead to austerity pressures, which in turn incent leaders to search for ways to cut defense expenditures. (2) Economic crises also encourage strategic reassessment, so that leaders can argue to their peers and their publics that defense spending can be arrested without endangering the state. This can lead to threat deflation, where elites attempt to downplay the seriousness of the threat posed by a former rival. (3) If a state faces multiple threats, economic crises provoke elites to consider threat prioritization, a process that is postponed during periods of economic normalcy. (4) Economic crises increase the political and economic benefit from international economic cooperation. Leaders seek foreign aid, enhanced trade, and increased investment from abroad during periods of economic trouble. This search is made easier if tensions are reduced with historic rivals. (5) Finally, during crises, elites are more prone to select leaders who are perceived as capable of resolving economic difficulties, permitting the emergence of leaders who hold heterodox foreign policy views. Collectively, these mechanisms make it much more likely that a leader will prefer conciliatory policies compared to during periods of economic normalcy. This section reviews this causal logic in greater detail, while also providing historical examples that these mechanisms recur in practice.

#### They don’t solve great power war – decoupling between the US and China is already locked in from COVID and Trump’s entire presidency

#### Free trade causes, not prevents, war:

#### 1 -- Uncertainty.

Spaniel & Malone 19 [William Spaniel, Department of Political Science, University of Pittsburgh. Iris Malone, Department of Political Science, Stanford. The Uncertainty Tradeoff: Re-Examining Opportunity Costs and War. March 5, 2019. <https://wjspaniel.files.wordpress.com/2019/03/uncertainty-tradeoff-final.pdf>] brett

This paper has more general implications for trade-conflict research. It complements growing calls to disaggregate the effects of instruments like trade (Martin et al. 2008). Empirical analyses must carefully trace what precisely parties do not know about each other to draw the correct inference. It also suggests states should be careful in interpreting how other states value or benefit from mutual trade flows. A free trade agreement championed by one state may be perceived as relatively less beneficial in another state. This uncertainty may undermine the credibility to abide by the agreement in the long-run.

We also highlight the need for future research to consider screening incentives in trade deals themselves. Although the proposer benefits from greater trade—both from the direct economic benefit and indirect ability to steal more surplus from the receiver— trade can harm unresolved receivers and incentivize screening. This could generate some constraints in the deals a state is willing to sign, in fear that the rearranged incentives under uncertainty could hurt its ability to effectively bluff later. A more unified approach to trade and crisis negotiations would yield additional interesting insights.

Moving forward, the results speak to other lines of research in international relations theory predicated on changing costs of conflict. We couched our results in the interdependence literature due its clear application. However, the comparative static speaks to cases where the receiver’s costs increase more generally.23 Framed this way, the results have clear implications for other literatures. For example, standard nuclear deterrence theory argues that possessing nuclear weapons increases the costs of war for potential challengers due to the risk of a retaliatory nuclear response (Morgenthau 1961, 280; Gilpin 1983, 213-219). The logic of alliance formation similarly relies on the assumption that entering these pacts induces peace by raising an opponent’s costs of conflict (Morrow 1994). Together, these mechanisms assume raising the costs of war should decrease conflict. Our results demonstrate this effect is likely more conditional than previously realized. We find increased costs of conflict can exacerbate issues with uncertainty over resolve even if both states possess destructive weaponry. This promises to shed new insights into how raising costs affects deterrence and coercive bargaining in other contexts.

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