### 1

#### Interpretation: Reduce means unconditional and permanent – the aff is a suspension.

Reynolds 59 – Judge (In the Matter of Doris A. Montesani, Petitioner, v. Arthur Levitt, as Comptroller of the State of New York, et al., Respondents [NO NUMBER IN ORIGINAL] Supreme Court of New York, Appellate Division, Third Department 9 A.D.2d 51; 189 N.Y.S.2d 695; 1959 N.Y. App. Div. LEXIS 7391 August 13, 1959, lexis)

Section 83's counterpart with regard to nondisability pensioners, section 84, prescribes a reduction only if the pensioner should again take a public job. The disability pensioner is penalized if he takes any type of employment. The reason for the difference, of course, is that in one case the only reason pension benefits are available is because the pensioner is considered incapable of gainful employment, while in the other he has fully completed his "tour" and is considered as having earned his reward with almost no strings attached. It would be manifestly unfair to the ordinary retiree to accord the disability retiree the benefits of the System to which they both belong when the latter is otherwise capable of earning a living and had not fulfilled his service obligation. If it were to be held that withholdings under section 83 were payable whenever the pensioner died or stopped his other employment the whole purpose of the provision would be defeated, i.e., the System might just as well have continued payments during the other employment since it must later pay it anyway.  [\*\*\*13]  The section says "reduced", does not say that monthly payments shall be temporarily suspended; it says that the pension itself shall be reduced. The plain dictionary meaning of the word is to diminish, lower or degrade. The word "reduce" seems adequately to indicate permanency.

#### Violation:

#### Vote neg:

#### 1] Limits and ground– their model allows affs to defend anything from pandemics to Biden’s presidency— there's no universal DA since it’s impossible to know the timeframe when there won’t be IP— that explodes neg prep and leads to random timeframe of the week affs which makes cutting stable neg links impossible — limits key to reciprocal engagement since they create a caselist for neg prep (innovation, collaboration, econ, ptx: all core neg literature thrown away)

#### 2] Precision o/w – anything else 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.

#### 3] TVA – defend the advantage to a whole rez timeframe. We don’t prevent new FWs, mechanisms, or advantages. PICs don’t solve – our model allows you to specify countries and medicines.

#### Fairness – debate is a competitive activity that requires fairness for objective evaluation. Outweighs because it’s the only intrinsic part of debate – all other rules can be debated over but rely on some conception of fairness to be justified.

#### Drop the debater – a] deter future abuse and b] set better norms for debate.

#### Competing interps – [a] reasonability is arbitrary and encourages judge intervention since there’s no clear norm, [b] it creates a race to the top where we create the best possible norms for debate.

#### No RVIs – a] illogical, you don’t win for proving that you meet the burden of being fair, logic outweighs since it’s a prerequisite for evaluating any other argument, b] RVIs incentivize baiting theory and prepping it out which leads to maximally abusive practices

### 2

#### Pharma innovation high now—monetary incentive is the biggest factor.

**Swagel 21** Phillip L. Swagel, Director of the Congressional budget office 4-xx-2021, "Research and Development in the Pharmaceutical Industry," Congressional Budget Office, <https://www.cbo.goc/publication/57126#_idTextAnchor020> SJ//DA

**Every year, the U.S. pharmaceutical industry develops a variety of new drugs that provide valuable medical benefits. Many of those drugs are expensive and contribute to rising health care costs for the private sector and the federal government. Policymakers have considered policies that would lower drug prices and reduce federal drug expenditures. Such policies would probably reduce the industry’s incentive to develop new drugs.** In this report, the Congressional Budget Office assesses trends in spending for drug research and development (R&D) and the introduction of new drugs. CBO also examines factors that determine how much drug companies spend on R&D: expected global revenues from a new drug; cost to develop a new drug; and federal policies that affect the demand for drug therapies, the supply of new drugs, or both. What Are Recent Trends in Pharmaceutical R&D and New Drug Approvals? T**he pharmaceutical industry devoted $83 billion to R&D expenditures in 2019. Those expenditures covered a variety of activities, including discovering and testing new drugs, developing incremental innovations such as product extensions, and clinical testing for safety-monitoring or marketing purposes. That amount is about 10 times what the industry spent per year in the 1980s, after adjusting for the effects of inflation.** The share of revenues that drug companies devote to R&D has also grown: **On average, pharmaceutical companies spent about one-quarter of their revenues (net of expenses and buyer rebates) on R&D expenses** in 2019, which is **almost twice as large a share of revenues as they spent in 2000.** That revenue share is larger than that for other knowledge-based industries, such as semiconductors, technology hardware, and software. The number of new drugs approved each year has also grown over the past decade. On averace, the Food and Drug Administration (FDA) approved 38 new drugs per year from 2010 through 2019 (with a peak of 59 in 2018), which is 60 percent more than the yearly average over the previous decade. **Many of the drugs that have been approved in recent years are “specialty drugs.” Specialty drugs generally treat chronic, complex, or rare conditions, and they may also require special handling or monitoring of patients**. Many specialty drugs are biologics (large-molecule drugs based on living cell lines), **which are costly to develop, hard to imitate, and frequently have high prices.** Previously, most drugs were small-molecule drugs based on chemical compounds. Even while they were under patent, those drugs had lower prices than recent specialty drugs have. Information about the kinds of drugs in current clinical trials indicates that much of the industry’s innovative activity is focused on specialty drugs that would provide new cancer therapies and treatments for nervous-system disorders, such as Alzheimer’s disease and Parkinson’s disease. **What Factors Influence Spending for R&D?** Drug companies’ R&D spending decisions depend on three main factors: Anticipated lifetime global revenues from a new drug, **Expected costs to develop a new drug**, and Policies and programs that influence the supply of and demand for prescription drugs. Various considerations inform companies’ expectations about a drug’s revenue stream, including the anticipated prices it could command in different markets around the world and the expected global sales volume at those prices (given the number of people who might use the drug). The prices and sales volumes of existing drugs provide information about consumers’ and insurance plans’ willingness to pay for drug treatments. Importantly, when drug companies set the prices of a new drug, they do so to maximize future revenues net of manufacturing and distribution costs. A drug’s sunk R&D costs—that is, the costs already incurred in developing that drug—do not influence its price. **Developing new drugs is a costly and uncertain process, and many potential drugs never make it to market. Only about 12 percent of drugs entering clinical trials are ultimately approved for introduction by the FDA. In recent studies, estimates of the average R&D cost per new drug range from less than $1 billion to more than $2 billion per drug**. Those estimates include the costs of both laboratory research and clinical trials of successful new drugs as well as expenditures on drugs that do not make it past the laboratory-development stage, that enter clinical trials but fail in those trials or are withdrawn by the drugmaker for business reasons, or that are not approved by the FDA. Those estimates also include the company’s capital costs—the value of other forgone investments—incurred during the R&D process. Such costs can make up a substantial share of the average total cost of developing a new drug. The development process often takes a decade or more, and during that time the company does not receive a financial return on its investment in developing that drug. The federal government affects R&D decisions in three ways. First, it increases demand for prescription drugs, which encourages new drug development, by fully or partially subsidizing the purchase of prescription drugs through a variety of federal programs (including Medicare and Medicaid) and by providing tax preferences for employment-based health insurance. Second, the federal government increases the supply of new drugs. It funds basic biomedical research that provides a scientific foundation for the development of new drugs by private industry. Additionally, tax credits—both those available to all types of companies and those available to drug companies for developing treatmentscof uncommon diseases—provide incentives to invest in R&D. Similarly, deductions for R&D investment can be used to reduce tax liabilities immediately rather than over the life of that investment. Finally, the patent system and certain statutory provisions that delay FDA approval of generic drugs provide pharmaceutical companies with a period of market exclusivity, when competition is legally restricted. During that time, they can maintain higher prices on a patented product than they otherwise could, which makes new drugs more profitable and thereby increases drug companies’ incentives to invest in R&D. Third, some federal policies affect the number of new drugs by influencing both demand and supply. For example, federal recommendations for specific vaccines increase the demand for those vaccines and provide an incentive for drug companies to develop new ones. Additionally, federal regulatory policies that influence returns on drug R&D can bring about increases or decreases in both the supply of and demand for new drugs. Trends in R&D Spending and New Drug Development Private spending on pharmaceutical R&D and the approval of new drugs have both increased markedly in recent years, resuming a decades-long trend that was interrupted in 2008 as generic versions of some top-selling drugs became available and as the 2007–2009 recession occurred. **In particular, spending on drug R&D increased by nearly 50 percent between 2015 and 2019.** Many of the drugs approved in recent years are high-priced specialty drugs for relatively small numbers of potential patients. By contrast, the top-selling drugs of the 1990s were lower-cost drugs with large patient populations. R&D Spending R&D spending in the pharmaceutical industry covers a variety of activities, including the following: Invention, or research and discovery of new drugs; Development, or clinical testing, preparation and submission of applications for FDA approval, and design of production processes for new drugs; Incremental innovation, including the development of new dosages and delivery mechanisms for existing drugs and the testing of those drugs for additional indications; Product differentiation, or the clinical testing of a new drug against an existing rival drug to show that the new drug is superior; and Safety monitoring, or clinical trials (conducted after a drug has reached the market) that the FDA may require to detect side effects that may not have been observed in shorter trials when the drug was in development. In real terms**, private investment in drug R&D among member firms of the Pharmaceutical Research and Manufacturers of America (PhRMA), an industry trade association, was about $83 billion in 2019, up from about $5 billion in 1980 and $38 billion in 2000**.1 Although those spending totals do not include spending by many smaller drug companies that do not belong to PhRMA, the trend is broadly representative of R&D spending by the industry as a whole.2 A survey of all U.S. pharmaceutical R&D spending (including that of smaller firms) by the National Science Foundation (NSF) reveals similar trends.3 Although total R&D spending by all drug companies has trended upward, small and large firms generally focus on different R&D activities. **Small companies not in PhRMA devote a greater share of their research to developing and testing new drugs,** many of which are ultimately sold to larger firms (see Box 1). By contrast, a greater portion of the R&D spending of larger drug companies (including those in PhRMA) is devoted to conducting clinical trials, developing incremental “line extension” improvements (such as new dosages or delivery systems, or new combinations of two or more existing drugs), and conducting postapproval testing for safety-monitoring or marketing purposes.

#### The aff crushes innovation in the pharma sector—incentivizes them to focus on non-important issues.

Glassman 21 [Amanda; 5/6/21; Executive vice president and a senior fellow at the Center for Global Development, a nonpartisan, nonprofit think tank in Washington and London; “*Big Pharma Is Not the Tobacco Industry*,” Barron, <https://www.barrons.com/articles/big-pharma-is-not-the-tobacco-industry-51620315693>] Justin

But here is the crux of the problem: The pharmaceutical industry is not the tobacco industry. They are not merchants of death. The companies are amoral and exist to make money, but their business is not fundamentally immoral. Big Pharma (mostly) develops and sells products that people need to survive and thrive. Their products improve health and welfare. Fights over access to medicines are possible because medicines exist in the first place—medicines that were usually developed by Big Pharma. And yes, the pharmaceutical industry benefits from public subsidy and publicly financed foundational research. But the companies also put their own capital at risk to develop new products, some of which offer enormous public benefits. In fact, several of them did just that in the pandemic: invested their own money to develop patented manufacturing technologies in record time. Those technologies are literally saving the world right now. Public funding supported research and development, but companies also brought their own proprietary ingenuity and private investments to bear toward solving the world’s singular, collective challenge. Their reward should be astronomical given the insane scale of the health and economic benefits these highly efficacious vaccines produce every day. Market incentives sent a clear signal that further needed innovation—greater efficacy, single doses, more-rapid manufacturing, updated formulations, fast boosters, and others—would be richly rewarded. Market incentives could also have been used to lubricate supply lines and buy vaccines on behalf of the entire world; with enough money, incredible things can happen. But activist lobbying to waive patents—a move the Biden administration endorsed yesterday—sends exactly the opposite signal. It says that the most important, valuable innovations will be penalized, not rewarded. It tells innovators, don’t bother attacking the most important global problems; instead, throw your investment dollars at the next treatment for erectile disfunction, which will surely earn you a steady return with far less agita. It is worth going back to first principles. What problem are we trying to solve? We have highly efficacious vaccines that we would like to get out to the entire world as quickly as possible to minimize, preventable disease and deaths address atrocious inequities, and enable the reopening of society, trade, and commerce. Hundreds of millions of people have been plunged into poverty over the past year; in the developing world, the pandemic is just getting started. What is the quickest way to get this done? Vaccine manufacturing is not just a recipe; if you attack and undermine the companies that have the know-how, do you really expect they’ll be eager to help you set up manufacturing elsewhere? Is the plan to march into Pfizer and force its staff to redeploy to Costa Rica to build a new factory? Do the U.S. administration or activists care that this decision could take years to negotiate at the World Trade Organization, and will likely be litigated for years thereafter? Does it make sense to eliminate the incentive for private companies to invest in vaccine R&D or in the response to the next health emergency? And if the patent waiver is only temporary and building a factory takes months or years, will anyone bother to do so, even if they could? No, none of it makes sense. Worse still, we could solve the policy problem more easily by harnessing market incentives for the global good by ponying up cash to vaccinate the entire world. No confiscation necessary.

#### Innovation checks future disease – extinction

Engelhardt 8 [H. Tristram. Innovation and the pharmaceutical industry: critical reflections on the virtues of profit. M & M Scrivener Press, 2008 (doctorate in philosophy (University of Texas at Austin), M.D. (Tulane University), professor of philosophy (Rice University), and professor emeritus at Baylor College of Medicine)] Recut Justin

Many are suspicious of, or indeed jealous of, the good fortune of others. Even when profit is gained in the market without fraud and with the consent of all buying and selling goods and services, there is a sense on the part of some that something is wrong if considerable profit is secured. There is even a sense that good fortune in the market, especially if it is very good fortune, is unfair. One might think of such rhetorically disparaging terms as "wind-fall profits". There is also a suspicion of the pursuit of profit because it is often embraced not just because of the material benefits it sought, but because of the hierarchical satisfaction of being more affluent than others. The pursuit of profit in the pharmaceutical and medical-device industries is tor many in particular morally dubious because it is acquired from those who have the bad fortune to be diseased or disabled. Although the suspicion of profit is not well-founded, this suspicion is a major moral and public-policy challenge. Profit in the market for the pharmaceutical and medical-device industries is to be celebrated. This is the case, in that if one is of the view (1) that the presence of additional resources for research and development spurs innovation in the development of pharmaceuticals and med-ical devices (i.e., if one is of the view that the allure of profit is one of the most effective ways not only to acquire resources but productively to direct human energies in their use), (2) that given the limits of altruism and of the willingness of persons to be taxed, the possibility of profits is necessary to secure such resources, (3) that the allure of profits also tends to enhance the creative use of available resources in the pursuit of phar-maceutical and medical-device innovation, and (4) if one judges it to be the case that such innovation is both necessary to maintain the human species in an ever-changing and always dangerous environment in which new microbial and other threats may at any time emerge to threaten human well-being, if not survival (i.e., that such innovation is necessary to prevent increases in morbidity and mortality risks), as well as (5) in order generally to decrease morbidity and mortality risks in the future, it then follows (6) that one should be concerned regarding any policies that decrease the amount of resources and energies available to encourage such innovation. One should indeed be of the view that the possibilities for profit, all things being equal, should be highest in the pharmaceutical and medical-device industries. Yet, there is a suspicion regarding the pursuit of profit in medicine and especially in the pharmaceutical and medical-device industries.

#### Pharma spills-over – has cascading global impacts that are necessary for human survival.

NAS 8 National Academy of Sciences 12-3-2008 “The Role of the Life Sciences in Transforming America's Future Summary of a Workshop” //Re-cut by Elmer

Fostering Industries to Counter Global Problems The life sciences have applications in areas that range far beyond human health. Life-science based approaches could **contribute to advances in** many industries, from energy production and pollution remediation, to clean manufacturing and the production of new biologically inspired materials. In fact, biological systems could provide the basis for new products, services and industries that we cannot yet imagine. Microbes are already producing biofuels and could, through further research, provide a major component of future energy supplies. Marine and terrestrial organisms extract carbon dioxide from the atmosphere, which suggests that biological systems could be used to help manage climate change. Study of the complex systems encountered in biology is decade, it is really just the beginning.” Advances in the underlying science of plant and animal breeding have been just as dramatic as the advances in genetic can put down a band of fertilizer, come back six months later, and plant seeds exactly on that row, reducing the need for fertilizer, pesticides, and other agricultural inputs. Fraley said that the global agricultural system needs to adopt the goal of doubling the current yield of **crops while reducing key inputs like pesticides, fertilizers, and water** by one third. “It is more important than putting a man on the moon,” he said. Doubling agricultural yields would “change the world.” Another billion people will join the middle class over the next decade just in India and China as economies continue to grow. And all people need and deserve secure access to food supplies. Continued progress will require both basic and applied research, The evolution of life “put earth under new management,” Collins said. Understanding the future state of the planet will require understanding the biological systems that have shaped the planet. Many of these biological systems are found in the oceans, which cover 70 percent of the earth’s surface and have a crucial impact on weather, climate, and the composition of the atmosphere. In the past decade, new tools have become available to explore the microbial processes that drive the **chemistry of the oceans**, observed David Kingsbury, Chief Program Officer for Science at the Gordon and Betty Moore Foundation. These technologies have revealed that a large proportion of the planet’s genetic diversity resides in the oceans. In addition, many organisms in the oceans readily exchange genes, creating evolutionary forces that can have global effects. The oceans are currently under great stress, Kingsbury pointed out. Nutrient runoff from agriculture is helping to create huge and expanding “dead zones” where oxygen levels are too low to sustain life. Toxic algal blooms are occurring with higher frequency in areas where they have not been seen in the past. Exploitation of ocean resources is disrupting ecological balances that have formed over many millions of years. Human-induced changes in the chemistry of the atmosphere are changing the chemistry of the oceans, with potentially catastrophic consequences. “If we are not careful, we are not going to have a sustainable planet to live on,” said Kingsbury. Only by understanding the basic biological processes at work in the oceans can humans live sustainably on earth.

### 3

#### Text: The member nations of the World Trade Organization ought to form and adhere to an international panel of science diplomats’ ruling to reduce intellectual property protections for emergency use listing medicines during public health emergencies of international concern. which would be justified based on deliberation over why reducing intellectual property protections for emergency use listing medicines during public health emergencies of international concern is a good idea, why the status quo is worse, and how to enforce the plan.

#### They have the jurisdiction to rule over intellectual property and secure science diplomacy.

Hajjar and Greenbaum 18 [David; Dean Emeritus and University Distinguished Professor, and Professor of Biochemistry and Pathology at Weill Cornell Medicine, Cornell University. He is a Fellow of the American Academy of Arts and Sciences, Fellow of the American Association for the Advancement of Sciences, a Jefferson Science Fellow of the National Academies at the U.S. Department of State, and a recent Senior Fellow in Science Policy at the Brookings Institute; Steven; Professor and Chair of the Department of Physics and Astronomy at Hunter College of the City University of New York and a Fellow of the American Physical Society. He was a Jefferson Science Fellow of the National Academies at the U.S. Department of State; “Leveraging Diplomacy for Managing Scientific Challenges,” American Diplomacy; September 18; <https://americandiplomacy.web.unc.edu/2018/09/leveraging-diplomacy-for-managing-scientific-challenges-an-opportunity-to-navigate-the-future-of-science/>] Justin

At the global level, science diplomacy is defined as cooperation among countries in order to solve complex problems through scientific research and education (1). For example, science diplomacy plays an important role in resolving global issues related to the ecosystem (such as clean water, food safety, energy conservation, and preservation of the environment). It also addresses problems related to the healthcare industry. For example, scientists have served at the international level to forge the Middle Eastern Cancer Consortium a decade ago to facilitate better healthcare and improve cancer research in the region. Whether one considers science for diplomacy or diplomacy for science, international science collaborations benefit from allowing science diplomats (broadly defined as science envoys, science attaches, embassy fellows) to help establish positive international relationships between the U.S., Europe, Latin America, Africa or Asia, particularly when proprietary disputes arise (2, 3). These various types of science diplomats already exist; some, like embassy fellows and science envoys, have one-year appointments so their role may be limited, while attaches usually have two or three year appointments that may allow them to be more successful in long, protracted negotiations. In any event, we believe that scientists can play more of a role in advancing international scientific cooperation. A key point addressed here is how to balance security concerns against the need for free exchange of information needed for innovation and growth. Both the National Science Foundation and the National Institutes of Health are already engaged in supporting American science and strengthening collaborations abroad. Such efforts take advantage of international expertise, facilities, and equipment. Here, we provide a rationale for the use of diplomacy to address scientific challenges. This approach allows some scientists working as diplomats to help manage complex and potentially conflicting situations that arise between scientific communities and their governments. Such issues include managing disputes such as licensing agreements for intellectual property (IP) and providing protection of IP. International collaborations can not only support but also accelerate the advancement of science. However, collaborations may carry risk if IP is misappropriated for other purposes. International collaborations should have a basis in strategy and specific goals (for example, drug discovery) in order to justify the use of government and/or corporate funds. About a decade ago, a group of academics from the University of Manchester in the United Kingdom assembled the “Manchester Manifesto,” subtitled “Who Owns Science” (6). This document addressed the lack of alignment between commercial interests, intellectual rights, and credit to the researcher. In our (and commonly held) view, the groups representing these disparate values could benefit from diplomatic mediation. More recently, it has become increasing apparent that managing China as a science and technology superpower represents another challenge for the U.S. Resolution of issues such as ownership of IP, rights to reagents, or use of skilled laboratory personnel from international collaborations may require the efforts of science diplomats. There are few international offices or “guardians” to protect junior and senior scientists in corporate or academic sectors from misuse of reagents or piracy. China’s failure to respect IP rights, and the resulting piracy, has drawn much attention. The media have also focused on the failure of watchdog government agencies to detect and manage these unwanted activities. Industrial espionage compromises U.S. interests. Moreover, Chinese and Russian hackers have cyberattacked U.S. technology companies, financial institutions, media groups, and defense contractors. In 2018, industrial spying was even reported in a major medical school in New York City where scientists were alleged to have illegally shared research findings with Chinese companies. The U.S. has a long history of hiring research personnel from other countries to staff its laboratories and industrial R&D centers. These scientists and engineers have made critical contributions to our nation’s well-being and security. These young Chinese and South Asian graduates of U.S. programs a generation ago now staff our research enterprise. However, recent trends in U.S. graduate school applications in science, technology, engineering and mathematics (STEM) reflect a downturn in foreign applicants, particularly from China. It is becoming increasingly apparent that the number of American-born students seeking STEM degrees is not sufficient to satisfy future demands of our high-tech workforce. While our own educational reforms must be augmented, we cannot ignore the need to continue to recruit overseas talent. We believe that foreign scientists can continue to make critical discoveries in the U. S. provided that their talent is nurtured, developed, and harnessed for the common good. At the same time, American companies cannot hire foreign scientists if they take the ideas they generate in U.S. laboratories back to their home countries without proper credit or permission. If the advancement of science is to succeed, greater diplomatic cooperation is needed to solve and manage proprietary issues for the benefit of all (5, 6). So, how does one strike the proper balance between security and growth? Science is a universal social enterprise; international conferences lead to friendships and productive collaborations between nations. Given that the U.S. and Chinese governments recognize the need for international communication and collaboration then surely there should be a mechanism for adjudicating anticipated conflicts. One approach would be for government, industrial, and academic stakeholders to form an international panel of scientists and engineers to manage any conflicts of interest between the need to protect proprietary information crucial to a company’s competitive edge, and the need for students and young faculty members to publish their findings. Smaller scale efforts along these lines have recently given rise to unique global partnerships, such as fellowship support by major pharmaceutical companies, which aim to address these conflicts to the benefit of both parties. An added feature of such arrangements is that they often provide corporate financing for research (9). Can this corporate-academic partnership model be adapted to multinational joint R&D efforts while protecting IP? This question falls squarely within the purview of international science diplomacy, whereby science diplomats can establish rules of conduct governing joint global technology development with proper IP protection. Despite the highly publicized and legitimate piracy allegations against China, at least some data indicates that the Chinese legal system is responding positively to worldwide pressure to honor foreign IP. A 2016 study by Love, Helmers, and Eberhardt, for example, found that between 2006 and 2011, foreign companies brought over 10 percent of patent infringement cases in China, and won over 70 percent of those cases (10). Today, “win rates” average around 80 percent, and “injunction rates,” around 98 percent (10). As Chinese scientists and engineers increasingly enter the top tier of the innovation space, their growing awareness of their own need for IP protection could be a powerful motivating force for the protection of all IP. As stated earlier, science diplomats could catalyze this progress even further by direct negotiations with those parties involved in the conflicts. An obvious flaw in this optimistic outlook is that scientists in the U.S. wield more influence with their government than scientists in China wield with theirs. And to the extent that the Chinese government could be encouraging IP theft, this must be addressed first by those international companies/firms who want to do business with the Chinese. Chinese investments, as well as tech incubators and targeted acquisitions, can enable access to U.S. technologies for commercial development. Although this conveys a level of risk to the developers, it may provide valuable opportunities for U.S. companies as well. In many respects, the extensive engagement and collaboration in innovation between the U.S. and China, often characterized by open exchanges of ideas, talent, and technologies, can be mutually beneficial in enriching and accelerating innovation in both countries. In summary, we believe that science diplomats could help address the increasingly complex issues that arise between accelerating scientific and engineering advances, and the need to protect national security and corporate IP. We also propose that this might be accomplished by asking the **National Academies to recommend academic, corporate, and government scientific leaders to serve on an international scientific advisory board**, and for the corresponding organizations in other countries to do the same. Access to the free flow of information promotes new knowledge and innovation. A return to a more restrictive intellectual environment is not only harmful to progress, but also nearly impossible to manage in the current internet age. A good place to start would be to engage the newly appointed head of the White House Office of Science and Technology Policy (the Science Advisor to the President of the United States), and working groups within established organizations. These organizations include the American Association for the Advancement of Science (AAAS) or the National Academies of Science, Engineering and Medicine, and corresponding international organizations. What incentive is there for a busy and successful scientist to serve in such capacity? It is the same altruism that motivates us to accept assignments as journal editors, manuscript reviewers, or funding agency panelists for the advancement of science toward the greater good.

#### Solves every existential threat.

Haynes 18—research associate in the Neurobiology Department at Harvard Medical School (Trevor, “Science Diplomacy: Collaboration in a rapidly changing world,” <http://sitn.hms.harvard.edu/flash/2018/science-diplomacy-collaboration-rapidly-changing-world/>, dml) // Re-Cut Justin

Today’s world is extremely interconnected. Most of us take this fact for granted, but its implications cannot be overstated. The rate at which information, resources, and people are able to move from one part of the world to another continues to accelerate at an alarming rate. Undoubtedly, this development has done society immense good. In the last century, global life expectancy has doubled, the percentage of people living in extreme poverty has dropped by about 60%, and world literacy rates have increased by a similar margin. But while these statistics paint a promising picture of human civilization, human progress rests on a fragile foundation of international cooperation; the challenges presented by an interconnected world are immense. War, natural disasters, and economic collapse now exert their effects globally, creating economic and ecological disasters and mass human migrations on an unprecedented scale. And with the US pulling out of major multilateral agreements on trade, climate change mitigation, and denuclearization, you might wonder if our ability to collaborate across borders productively is really up to the task.

Global challenges require global solutions, and global solutions require collaboration between countries both big and small, rich and poor, authoritative and democratic. There are few human enterprises capable of providing continuity across these differences, and as technological solutions are becoming available to some of our most pressing issues, two in particular will be necessary to getting the job done: science and diplomacy. While science has long been utilized as a means to reach political ends—think of British explorer James Cook’s mapping of unexplored continents or the United States’ Manhattan Project—a more formal integration of scientists into the diplomatic process is being undertaken. This effort, which has led to scientists and academics playing a direct role in foreign policy development and international relations, has given birth of a new branch of diplomacy: science diplomacy.

What is science diplomacy?

As both the term and concept of science diplomacy have only recently gained traction in scientific and diplomatic circles, it’s been given a variety of definitions. But common to them all is the focus on applying scientific expertise to an international effort. The focus of these efforts is to solve international problems collaboratively while balancing economic prosperity, environmental protection, and societal wellbeing. The challenge of reaching this balance in the face of a booming global population cannot be understated, but this new branch of diplomacy is already at work and is producing results. International agreements such as the Paris Climate Agreement and the Iran Nuclear Deal are two famous examples, and science diplomacy is also establishing international collaboration in many other important arenas. While these lesser known efforts may not dominate the headlines, they are quietly tackling the global issues of today and preparing us for those of tomorrow.

Natural disasters don’t respect national boundaries (and neither does the aftermath)

In 2013, the number of refugees displaced by natural disasters—hurricanes, droughts, earthquakes—outnumbered those displaced by war. Current projections estimate as many as 1 billion people may be displaced by natural disasters by the year 2050. That would mean 1 in 9 people on the planet displaced and looking for a home. Compare this to the estimated 12 million refugees displaced by the war in Syria, and a frightening picture begins to form. As natural disasters continue to increase in both their frequency and intensity, solutions for mitigating the risk of total catastrophe will be underpinned by science, technology, and the ability of the international community to collaborate. Many organizations are starting to tackle these problems through the use of science diplomacy. The center for Integrated Research on Disaster Risk (IRDR) is composed of ten national committees—a network of government sponsored research institutions across the world in countries ranging the political and economic scale. These working groups have committed to improving disaster-risk-reduction science and technology while providing guidance to policy makers charged with implementing disaster prevention and mitigation strategies.

IRDR is governed by a committee comprising experienced scientists and natural disaster experts. Its members come from all over the world—the US, China, Uganda, Norway, Mexico, Venezuela, and more. The diversity of this organization starts at the top and is crucial to developing comprehensive risk-reduction strategies. Data and insights from countries with varying areas of expertise are being shared and built upon, facilitating more accurate natural disaster forecasting and better strategies for mitigating their destructive power. And by including representatives from countries of varying political and economic power in its leadership, IRDR ensures that its work will consider the needs of the global community at large, rather than just nations with considerable wealth and political standing.

The results of this type of international collaboration speak for themselves. Although humanity is grappling with more natural disasters than ever before, deaths related to these incidents continue to trend downward. Operating outside of the typical political framework that dominates foreign relations, IRDR provides a model for effective collaboration across the geopolitical spectrum in the face of a major global issue.

Explore or Exploit? Managing international spaces

Over the last few decades the polar ice cap that covers much of the Arctic Ocean has been shrinking. So much so, that during the warm season vast areas of previously solid ice have become open waters, creating opportunities for new trade routes and exposing the Arctic’s enormous reserves of oil and natural gas. Depending on your values, this will sound either like an opportunity for huge economic development of the region or the inevitable exploitation of one of the last untouched natural territories on the planet. And if you live there, like the half a million indigenous people who currently do, how this territory is managed will determine where you can live, how (and if) you can make a living, and what the health of the ecosystems that have supported Arctic life for millennia will look like.

Luckily, such a scenario was predicted decades ago. In 1987, Mikhail Gorbachev, then leader of the then Soviet Union, delivered a speech outlining his aspirations for the arctic to be explored rather than exploited—to radically reduce military presence, create a collaborative multinational research effort, cooperate on matters of environmental security, and open up the Northern Sea Route for trade. This speech laid the foundation for the Arctic Council (Figure 1), which is one of the most successful examples of science diplomacy at work. Composed of the eight Arctic nations, including geopolitical rivals US and Russia, and numerous groups of indigenous peoples, the Arctic Council was established to maintain Gorbachev’s vision for the region while giving the indigenous peoples a seat at the negotiating table. The council’s activities are conducted by six scientific and technology-based working groups who conduct research in the area and provide knowledge and recommendations to the council members. As a result of this research, and allowing scientists to take part in the negotiations, the Arctic council has enacted several legally binding agreements regarding the sustainable development and environmental protection of the Arctic Ocean. These agreements have facilitated cooperation on a number of important issues including search and rescue operations, prevention and containment of maritime oil pollution, and, most recently, enhanced data sharing and scientific research collaborations. Against a backdrop of rapidly deteriorating diplomatic relations, the US and Russia have co-chaired task forces that laid the foundation for these agreements, proving to the world that meaningful results can be achieved through the avenue of science diplomacy, regardless of geopolitics.

Science diplomacy going forward

The technical expertise that characterizes science diplomacy will continue to be in demand across many realms of foreign policy. For example, synthetic biology and gene-editing technology continue to factor into matters regarding agriculture and trade. Also, digital currencies, such as bitcoin, have changed the way economists and businesses are approaching markets. Finally, machine learning and artificial intelligence are being used by governments as a means for population control, giving rise to a new type of governance—digital authoritarianism.

While this expertise will be necessary for managing such issues, building international coalitions can’t be done through a purely scientific and technical lens. Convincing others to cooperate means providing them with a convincing argument to do so, and in terms they understand and find compelling. To achieve this, scientists must be trained to communicate their expertise in a way that moves stakeholders in policy discussions to act. This means appealing to motivations they have been largely taught to put to the side—whether they be political, economic, or emotional in nature—without obscuring the data and insights they have to offer.

For our leaders, policy makers, and diplomats to effectively understand issues underpinned by science and technology, experts in these fields must continue to be integrated into the mechanisms of governance. With scientists in the US running for elections in numbers like never before, we can expect this trend to continue. And in the face of a rising wave of nationalism across the world, it is crucial that we do everything we can to foster collaboration. The future of human civilization depends on it.

#### Pics are good 1). negflex, negating is harder they get to speak first and last so theyre always ahead on judge psychology and theres a 7-6 timeskew in rebuttal speeches, the neg needs some way to compensate which are pics 2) critical thinking making the 1ar harder forces them to think on their feet which controls the strongest internal link to fairness insofar as it forces big schoolers of their docs C) topic lit- allows us to delve into the specifics of the literature, debt outweighs breath since its better to read 100 pages out of one book than one page out of 100 books

### 4

#### Desire from lack projects identity which we can never fully reach which urges the political to determine which identities are legitimate. Thus, the role of the ballot is to vote for the debater with the best method of traversing the fantasy.

**Edelman 1** (Lee Edelman, No Future: Queer Theory and the Death Drive, 2004, Duke University Press, p. 7-9) SJCP//JG

Politics, to put this another way, names the space in which Imaginary relations, relations that hark back to a misrecognition of the self as enjoying some originary access to presence (a presence retroactively posited and therefore lost, one might say, from the start), compete for Symbolic fulfillment, for actualization in the realm of language to which subjectification subjects us all. Only the mediation of the signifier allows us to articulate those Imaginary relations, though always at the price of introducing the distance that precludes their realization: the distance inherent in the chain of ceaseless deferrals and substitutions to which language as a system of differences necessarily gives birth. The signifier, as alienating and meaningless token of our Symbolic constitution as subjects (as token, that is, of our subjectification through subjection to the prospect of meaning); the signifier, by means of which we always inhabit the order of the Other, the order of a social and linguistic reality articulated from somewhere; the signifier, which calls us into meaning by seeming call us to ourselves: this signifier only bestows a sort of promissory identity, one with which we can never succeed in fully coinciding because we, as subjects of the signifier, can only, be signifiers ourselves, can only ever aspire to catch up to [be what] whatever it is we might signify by closing the gap that divides us and, paradoxically, makes us subjects through that act of division alone. This structural inability of the subject to merge with the self for which it sees itself as a signifier in the eyes of the Other necessitates various strategies designed to suture the subject in the space of meaning where Symbolic and Imaginary overlap. Politics names the social enactment of the subject's attempt to establish the conditions for this impossible consolidation by identifying with something outside of itself in order to enter the presence, deferred perpetually, of itself. Politics, that is, names the struggle to effect a fantasmic order of reality in which the subject's alienation would vanish into the seamlessness of identity at the endpoint of the endless chain of signifiers lived as history. If politics in the Symbolic is always therefore a politics of the Symbolic, operating in the name and in the direction of a constantly anticipated futurity, then the telos that would, in fantasy, put an end to these deferrals, the presence toward which the metonymic chain of signifiers always aims, must be recognized, nonetheless, as belonging to an Imaginary past. This means not only that politics conforms to the temporality of desire, to what we might call the inevitable historicity of desire- the successive displacements forward of nodes of attachment as figures of meaning, points of intense metaphoric investment, produced in the hope, however vain, of filling the constitutive gap in the subject that the signifier necessarily installs- but also that politics is name for the temporalization of desire, for its translation into a narrative, for its teleological determination.

#### Notions of progress that pass through the aff is rooted in futurism that is built upon the symbol of the child which will always exclude the queer from the political as they are seen as useless to that image

**Edelman 2** (Lee Edelman, No Future: Queer Theory and the Death Drive, 2004, Duke University Press, p. 10-13) SJCP//JG

Politics, then, in opposing itself to the negativity of such a drive, gives us history as the continuous staging of our dream of eventual self-realization by endlessly reconstructing, in the mirror of desire, what we take to be reality itself. And it does so without letting us acknowledge that the future, to which it persistently appeals, marks the impossible place of an Imaginary past exempt from the deferrals intrinsic to the operation of the signifying chain and projected ahead as the site at which being and meaning are joined as One. In this it enacts the formal repetition distinctive of the drive while representing itself as bringing to fulfillment the narrative sequence of history and, with it, of desire, in the realization of the subject's authentic presence in the Child imagined as enjoying unmediated access to Imaginary wholeness. Small wonder that the era of the universal subject should produce as the very figure of politics, because also as the embodiment of futurity collapsing undecidably into the past, the image of the Child as we know it: the Child who becomes, in Wordsworth's phrase, but more punitively, "father of the Man." Historically constructed, as social critics and intellectual historians including Phillipe Aries, James Kincaid, and Lawrence Stone have made clear, to serve as the repository of variously sentimentalized cultural identifications, the Child has come to embody for us the telos of the social order and come to be seen as the one for whom that order is held in perpetual trust. In its coercive universalization, however, the image of the Child, not to be confused with the lived experiences of any historical children, serves to regulate political discourse-to prescribe what will count as political discourse-by compelling such discourse to accede in advance to the reality of a collective future whose figurative status we are never permitted to acknowledge or address. From Delacroix's iconic image of Liberty leading us into a brave new world of revolutionary possibility- her bare breast making each spectator the unweaned Child to whom it's held out while the boy to her left, reproducing her posture, affirms the absolute logic of reproduction itself-to the revolutionary waif in the logo that miniaturizes the "politics" of Les Mis (summed up in its anthem to futurism, the "inspirational" "One Day More"), we are no more able to conceive of a politics without a fantasy of the future than we are able to conceive of a future without the figure of the Child. That figural Child alone embodies the citizen as an ideal, entitled to claim full rights to its future share in the nation's good, though always at the cost of limiting the rights "real" citizens are allowed. For the social order exists to preserve for this universalized subject, this fantasmatic Child, a notional freedom more highly valued than the actuality of freedom itself, which might, after all, put at risk the Child to whom such a freedom falls due. Hence, whatever refuses this mandate by which our political institutions compel the collective reproduction of the Child must appear as a threat not only to the organization of a given social order but also, and far more ominously, to social order as such, insofar as it threatens the logic of futurism on which meaning always depends. So, for example, when D. James, in her novel Children of Men, imagines a future in which the human race has suffered a seemingly absolute loss of the capacity to reproduce, her narrator, Theodore Faron, not only attributes this reversal of biological fortune to the putative crisis of sexual values in late twentieth-century democracies-"Pornography and sexual violence on film, on television, in books, in life had increased and became more explicit but less and less in the West we made love and bred children," he declares-but also gives voice to the ideological truism that governs our investment in the Child as the obligatory token of futurity: "Without the hope of posterity, for our race not for ourselves, without the assurance that we being dead yet live," he later observes, "all pleasures of the mind and senses sometimes seem to me no more than pathetic and crumbling defences shored up against our ruins."12 While this allusion to Eliot's "The Waste Land" may recall another of its well-known lines, one for which we apparently have Eliot's Wife, Vivian, to thank-"What you get married for if you don't want children?"-it also brings out the function of the child as the prop of the secular theology on which our social reality rests: the secular theology that shapes at once the meaning of our collective narratives and our collective narratives of meaning. Charged, after all, with the task of assuring "that we being dead yet live," the Child, as if by nature (more precisely, as the promise of a natural transcendence of the limits of nature itself), exudes the very pathos from which the narrator of The Children of Men recoils when he comes upon it in nonreproductive "pleasures of the mind and senses." For the "pathetic" quality he projectively locates in non-generative sexual enjoyment-enjoyment that he views in the absence of futurity as empty, substitutive, pathological-exposes the fetishistic figurations of the Child that the narrator pits against it as legible in terms identical to those for which enjoyment without "hope of posterity" is peremptorily dismissed: legible, that is, as nothing more than "pathetic and crumbling defences shored up against our ruins." How better to characterize the narrative project of The Children of Men itself, which ends, as anyone not born yesterday surely expects from the start, with the renewal of our barren and dying race through the miracle of birth? After all, as Walter Wangerin Jr., reviewing the book for the New York Times, approvingly noted in a sentence delicately poised between description and performance of the novel's pro-procreative ideology: "If there is a baby, there is a future, there is redemption."13 If, however, there is no baby and, in consequence, no future, then the blame must fall on the fatal lure of sterile, narcissistic enjoyments understood as inherently destructive of meaning and therefore as responsible for the undoing of social organization, collective reality, and, inevitably, life itself.

#### anything hindering progress of the metaphorical child is subject to an ontological state of overkill

#### Stanley 11 Eric Stanley, Near Life, Queer Death: Overkill and Ontological Capture, 2011 SJ//VM

- Mbembe - “But what does it mean to do violence to what is nothing?”

**According to the autopsy** report, Travis County **medical examiner Dr.** Roberto **Bayardo cataloged at least fourteen blows to Lauryn’s head and more than sixty knife wounds to her body. The knife wounds were so deep that they almost decapitated her—a clear sign of overkill.** **Overkill is** a term used to indicate such **excessive violence that** it **pushes a body beyond death.** Overkill is often determined by the postmortem removal of body parts, as with the partial decapitation in the case of Lauryn Paige and the dissection of Rashawn Brazell. **The temporality of violence, the biological** **time when the heart stops pushing** **and pulling** **blood, yet the killing is not finished, suggests** **the aim is not** **simply** **the end of** **a** **specific life, but the ending** **of all queer life.** **This is the time of queer death, when the utility of violence gives way to the pleasure in the other’s mortality.** If queers, along with others, approximate nothing, then the task of ending, of killing, that which is nothing must go beyond normative times of life and death. In other words, **if** **Lauryn was** **dead after** **the first** **few stab wounds to the throat,** **then what do the remaining fifty wounds signify?** The legal theory that is offered to nullify the practice of overkill often functions under the name of the trans- or gay-panic defense. Both of these defense strategies argue that the murderer became so enraged after the “discovery” of either genitalia or someone’s sexuality they were forced to protect themselves from the threat of queerness. Estanislao Martinez of Fresno, California, used the trans-panic defense and received a four-year prison sentence after admittedly stabbing J. Robles, a Latina transwoman, at least twenty times with a pair of scissors. Importantly, this defense is often used, as in the cases of Robles and Paige, after the murderer has engaged in some kind of sex with the victim. **The logic of the trans-panic defense as an explanation for overkill, in its gory semiotics, offers us a way of understanding queers as the nothing of Mbembe’s query.** **Overkill names** **the technologies necessary** **to do away** **with** **that which is already gone. Queers** then **are the** specters of **life whose** **threat** **is** **so unimaginable that one is** **“forced,” not simply to murder, but to push them** **backward** **out of time, out of History, and into that which comes before.**

#### The alternative is to embrace the death drive – a full affirmation of queer negativity in which we reject the 1AC in favor of traversing the fantasy and realizing the structural positionality of queer identity.

**Edelman 3** (Lee Edelman, No Future: Queer Theory and the Death Drive, 2004, Duke University Press, p. 4-7) SJCP//JG

“Rather than rejecting, with liberal discourse, this ascription of negativity to the queer, we might, as I argue, do better to consider accepting and even embracing it. Not in the hope of forging thereby some more perfect social order-such a hope, after all, would only reproduce the constraining mandate of futurism, just as any such order would equally occasion the negativity of the queer-but rather to refuse the insistence of hope itself as affirmation, which is always affirmation of an order whose refusal will register as unthinkable, irresponsible, inhumane. And the trump card of affirmation? Always the question: If not this, what? Always the demand to translate the insistence, the pulsive force, of negativity into some determinate stance or "position" whose determination would thus negate it: always the imperative to immure it in some stable and positive form. When I argue, then, that we might do well to attempt what is surely impossible-to withdraw our allegiance, however compulsory, from a reality based on the Ponzi scheme of reproductive futurism-I do not intend to propose some "good" that will thereby be assured. To the contrary, I mean to insist that nothing, and certainly not what we calI the "good," can ever have any assurance at all in the order of the Symbolic. Abjuring fidelity to a futurism that's always purchased at our expense, though bound, as Symbolic subjects consigned to figure the Symbolic's undoing, to the necessary contradiction of trying turn its intelligibility against itself, we might rather, figuratively, cast our vote for "none of the above," for the primacy of a constant no in response to the law of the Symbolic, which would echo that law's foundational act, its self­constituting negation. The structuring optimism of politics to which the order of meaning commits us, installing as it does the perpetual hope of reaching meaning through signification, is always, I would argue, a negation of this primal, constitutive, and negative act. And the various positivities produced in its wake by the logic of political hope depend on the mathematical illusion that negated negations might somehow escape, and not redouble, such negativity. My polemic thus stakes its fortunes on a truly hopeless wager: that taking the Symbolic's negativity to the very letter of the law, that attending to the persistence of something internal to reason that reason refuses, that turning the force of queerness against all subjects, however queer, can afford an access to the jouissance that at once defines and negates us. Or better: can expose the constancy, the inescapability, of such access to jouissance in the social order itself even if that order can access its constant access to jouissance only in the process of abjecting that constancy of access onto the queer. In contrast to what Theodor Adorno describes as the "grimness with which a man clings to himself, as to the immediately sure and substantial," the queerness of which I speak would deliberately sever us from ourselves, from the assurance, that is, of knowing ourselves and hence of knowing our "good."4 Such queerness proposes, in place of the good, something I want to call "better," though it promises, in more than one sense of the phrase, absolutely nothing. I connect this something better with Lacan's characterization of what he calls "truth," where truth does not assure happiness, or even, as Lacan makes clear, the good.5 Instead, it names only the insistent particularity of the subject, impossible fully to articulate and "tend[ing] toward the real."6 Lacan, therefore, can write of this truth: The quality that best characterizes it is that of being the true Wunsch, which was at the origin of an aberrant or atypical behavior. We encounter this Wunsch with its particular, irreducible character as a modification that presupposes no other form of normalization than that of an experience of pleasure or of pain, but of a final experience from whence it springs and is subsequently preserved in the depths of the subject in an irreducible form. The Wunsch does not have the character of a universal law but, on the contrary, of the most particular of laws-even if it is universal that this particularity is to be found in every human being.' Truth, like queerness, irreducibly linked to the "aberrant or atypical," to what chafes against "normalization," finds its value not in a good susceptible to generalization, but only in the stubborn particularity that voids every notion of a general good. The embrace of queer negativity, then,- can have no justification if justification requires it to reinforce some positive social value; its value, instead, resides in its challenge to value as defined by the social, and thus in its radical challenge to the very value of the social itself. For by figuring a refusal of the coercive belief in the paramount value of futurity, while refusing as well any backdoor hope for dialectical access to meaning, the queer dispossesses the social order of the ground on which it rests: a faith in the consistent reality of the social-and by extension, of the social subject; a faith that politics, whether of the left or of the right, implicitly affirms. Divesting such politics of its thematic trappings, bracketing the particularity of its various proposals for social organization, the queer insists that politics is always a politics of the signifier, or even of what Lacan will often refer to as "the letter." It serves to shore up a reality always unmoored by signification and lacking any guarantee. To say as much is not, of course, to deny the experiential violence that frequently troubles social reality or the apparent consistency with which it bears-and thereby bears down on-us all. It is, rather, to suggest that queerness exposes the obliquity of our relation to what we experience in and as social reality, alerting us to the fantasies structurally necessary in order to sustain it and engaging those fantasies through the figural logics, the linguistic structures, that shape them. If it aims effectively to intervene in the reproduction of such a reality-an inter­vention that may well take the form of figuring that reality's abortion­ then queer theory must always insist on its connection to the vicissi­tudes of the sign, to the tension between the signifier's collapse into the letter's cadaverous materiality and its participation in a system of refer­ence wherein it generates meaning itself. As a particular story, in other words, of why storytelling fails, one that takes both the value and the burden of that failure upon itself, queer theory, as I construe it, marks the "other" side of politics: the "side" where narrative realization and derealization overlap, where the energies of vitalization ceaselessly turn against themselves; the "side" outside all political sides, committed as they are, on every side, to futurism's unquestioned good.

### Case

#### Reject 1AR theory- A] 7-6 time skew means it’s endlessly aff biased B] I don’t have a 3nr which allows for endless extrapolation C] 1AR theory is skewed to the aff because they have a 2ar judge psychology warrant which is also a reason why they shouldn’t get 2ar weighing

#### DTA on 1AR shells - They can blow up a blippy 20 second shell to 3 min of the 2AR while I have to split my time and can’t preempt 2AR spin which necessitates judge intervention and means 1AR theory is irresolvable so you shouldn’t stake the round on it.

### Pandemics

#### The WTO can’t enforce the aff- causes circumvention.

Lamp 19 [Nicholas; Assistant Professor of Law at Queen’s University; “What Just Happened at the WTO? Everything You Need to Know, Brink News,” 12/16/19; <https://www.brinknews.com/what-just-happened-at-the-wto-everything-you-need-to-know/>] Justin

Nicolas Lamp: For the first time since the establishment of the WTO in 1995, the Appellate Body cannot accept any new appeals, and that has knock-on effects on the whole global trade dispute settlement system. When a member appeals a WTO panel report, it goes to the Appellate Body, but if there is no Appellate Body, it means that that panel report will not become binding and will not attain legal force.

The absence of the Appellate Body means that members can now effectively block the dispute settlement proceedings by what has been called appealing panel reports “into the void.”

The WTO panels will continue to function as normal. When a panel issues a report, it will normally be automatically adopted — unless it is appealed. And so, even though the panel is working, the respondent in a dispute now has the option of blocking the adoption of the panel’s report. It can, thereby, shield itself from the legal consequences of a report that finds that the member has acted inconsistently with its WTO obligations.

#### Companies will just obtain a patent in a different sector.

Thomas 15 [John R; Visiting Scholar, CRS; “Tailoring the Patent System for Specific Industries, Congressional Research Service,” CRS; 2015; <https://crsreports.congress.gov/product/pdf/R/R43264/7>] Justin

In view of the concerns noted above, commentators have gone so far to say that “it has become increasingly difficult to believe that a one-size-fits-all approach to patent law can survive.”75 To the extent the current patent system creates a blanket set of rules that apply comparably to distinct industries, it likely over-encourages innovation in some contexts and under-incentivizes it in others.76 Further, some observers have asserted that the need of firms to identify and access the patented inventions of others may differ among industries.77 As a result, the case can be made that distinct industrial, technological, and market characteristics that exist across the breadth of the U.S. economy compel industry-specific patent statutes. However, others have questioned the wisdom and practicality of such line-drawing.78 The following concerns, among others, have been identified:

• Over its long history, the U.S. patent system has flexibly adapted to new technologies such as biotechnology and computer software. Legislative adoption of technology-specific categories may leave unanticipated, cutting-edge technologies outside the patent system.79

• Defining a specific industry or category of technologies may prove to be a contested proposition.

80 • Over time, new industries may emerge and old industries may consolidate. The dynamic nature of the U.S. economy suggests greater need for legislative oversight within a differentiated patent regime.

81 • Even if an industry or technology remains relatively stable, the innovation environment within it might change. For example, technological or scientific advances might open new possibilities for research and development within hidebound industries—but also increase expense and risk for those firms.

#### Aff fails---trade secrets remain secrets and existing logistical hubs fail.

Banri Ito 21 [(Professor of Economics, Aoyama Gakuin University; Fellow, RIETI), 8/8/21, Impacts of the vaccine intellectual property rights waiver on global supply, <https://voxeu.org/article/impacts-vaccine-intellectual-property-rights-waiver-global-supply>] Justin

Regarding waivers of vaccine patents, there have been some voluntary initiatives. On 8 October, soon after South Africa and India proposed a waiver of the TRIPS agreement on 2 October 2020, Moderna, a US pharmaceutical company, expressed its intention not to exercise its patent rights on its COVID-19 vaccine.1 Although Moderna reached an agreement with South Korean pharmaceutical company Samsung Biologics on consignment production of the vaccine on 22 May 2021, so far there have been very few confirmed cases of efforts to reproduce Moderna's vaccine or of licenses being granted to other companies.

With respect to the COVID-19 vaccines developed by Pfizer (jointly with BioNTech of Germany) and Moderna, it appears that the whole body of relevant technical knowledge has not necessarily been patented but that some of the technical knowledge remains undisclosed as trade secrets. Patenting is only one means of ensuring ‘appropriability’, which refers to a company's capacity to secure profits from its own technological innovation. While patent information may make it possible for outsiders to achieve development results similar to those achieved by the patented technology through a similar method without infringing the patent right, keeping the technology undisclosed as a trade secret or incorporating complex processes into it may be an effective means of ensuring appropriability. Pharmaceuticals can easily be counterfeited through ‘reverse engineering’, which refers to a process in which the active ingredients of a drug are identified as a result of deformulation. Therefore, as a general rule, it is considered important to exclude the risk of counterfeiting through patenting.

While it is not clear how much of the relevant technological knowledge remains unpatented, there are apparently some technical reasons for not obtaining full patent protection. The Pfizer and Moderna vaccines use advanced technology based on messenger RNA (mRNA), representing the first case of practical application of such technology. Although I, a non-expert in this field, will refrain from going into further detail, it is highly likely that those vaccines cannot easily be counterfeited as their production requires complex production processes and unique technology.

Patenting involves public disclosure of technical knowledge, providing information on how to reproduce patented inventions. It has the function of lowering technology trade costs by clarifying property rights on technical knowledge. If the technical knowledge necessary for manufacturing a certain product remains undisclosed as a trade secret, it may not be recorded in a written or other tangible form, and it may become necessary to pass down the technical information as cumulative implicit knowledge. As a result, technology transfer may become difficult.

Perhaps in view of that risk, in April 2021, the World Health Organization (WHO) established a COVID-19 vaccine technology transfer hub as a scheme to promote the sharing of mRNA-based technology. However, there are no media reports to date indicating that technical knowledge has been provided through this scheme.2

#### MRNA expert shortages.

Garde et al 21 [Damian Garde (National Biotech Reporter), Helen Branswell (Senior Writer, Infectious Disease)Matthew Herper (Senior Writer, Medicine, Editorial Director of Events), 5/6/21, Waiver of patent rights on Covid-19 vaccines, in near term, may be more symbolic than substantive, <https://www.statnews.com/2021/05/06/waiver-of-patent-rights-on-covid-19-vaccines-in-near-term-may-be-more-symbolic-than-substantive/>] Justin

In October, Moderna vowed not to enforce its Covid-19-related patents for the duration of the pandemic, opening the door for manufacturers that might want to copy its vaccine. But to date, it’s unclear whether anyone has, despite the vaccine’s demonstrated efficacy and the worldwide demand for doses.

That underscores the drug industry’s case that patents are just one facet of the complex process of producing vaccines.

“There are currently no generic vaccines primarily because there are hundreds of process steps involved in the manufacturing of vaccines, and thousands of check points for testing to assure the quality and consistency of manufacturing. One may transfer the IP, but the transfer of skills is not that simple,” said Norman Baylor, who formerly headed the Food and Drug Administration’s Office of Vaccines Research and Review, and who is now president of Biologics Consulting.

While there are factories around the world that can reliably produce generic Lipitor, vaccines like the ones from Pfizer and Moderna — using messenger RNA technology — require skilled expertise that even existing manufacturers are having trouble sourcing.

“In such a setting, imagining that someone will have staff who can create a new site or refurbish or reconfigure an existing site to make mRNA [vaccine] is highly, highly unlikely,” Yadav said.

#### LICs statistically cannot mass produce vaccines.

Newey et al 21 [Sarah Newey*;* Anne Gulland*;* Jennifer Rigby, (GLOBAL HEALTH SECURITY CORRESPONDENTS at the telegraph) *and* Samaan Lateef (Reporting IN INDIA) 6/1/21, Vaccinating the world: the obstacles hindering global rollout – and how to overcome them, Telegraph, <https://www.telegraph.co.uk/global-health/science-and-disease/vaccinating-the-world/>] Justin

Supply is one thing but actually getting shots into arms is a huge undertaking for any country. According to a review of low and middle income countries’ readiness to implement vaccine campaigns conducted by the World Bank, 95 per cent have developed national plans and 82 per cent have worked out which groups should be vaccinated first. However, crucial gaps remain. Only 59 per cent have plans to train vaccinators and less than half (48 per cent) have implemented communications strategies to encourage people to take up vaccines. While low and middle income countries are used to delivering childhood vaccines, so have cold chain systems in place, a mass vaccine campaign for adults is a very different beast, says Mamta Murthi, vice president for human development at the World Bank. “This is a very different population – adults may be at work, at home, they may be unwilling to travel or not be able to come to vaccine centres,” she says.

#### The aff causes a scramble for limited resources by manufacturers with no experience – turns case.

Breuninger 21 [Kevin; Specialist at CNBC; “Pfizer CEO opposes U.S. call to waive Covid vaccine patents, cites manufacturing and safety issues,” CNBC; 5/7/21; <https://www.cnbc.com/2021/05/07/pfizer-ceo-biden-backed-covid-vaccine-patent-waiver-will-cause-problems.html>] Justin

“Currently, infrastructure is not the bottleneck for us manufacturing faster,” Bourla wrote in a dear colleague letter posted on LinkedIn. “The restriction is the scarcity of highly specialized raw materials needed to produce our vaccine.”

Pfizer’s vaccine requires 280 different materials and components that are sourced from 19 countries around the world, Bourla said. He contended that without patent protections, entities with much less experienced than Pfizer at manufacturing vaccines will start competing for the same ingredients.

“Right now, virtually every single gram of raw material produced is shipped immediately into our manufacturing facilities and is converted immediately and reliably to vaccines that are shipped immediately around the world,” Bourla wrote.

He predicted that the proposed waiver “threatens to disrupt the flow of raw materials.”

“It will unleash a scramble for the critical inputs we require in order to make a safe and effective vaccine,” Bourla wrote.

“Entities with little or no experience in manufacturing vaccines are likely to chase the very raw materials we require to scale our production, putting the safety and security of all at risk,” the CEO wrote.

#### Prevents distribution---causes vaccine hesitancy.

Newey et al 21 [Sarah Newey*;* Anne Gulland*;* Jennifer Rigby, (GLOBAL HEALTH SECURITY CORRESPONDENTS at the telegraph) *and* Samaan Lateef (Reporting IN INDIA) 6/1/21, Vaccinating the world: the obstacles hindering global rollout – and how to overcome them, Telegraph, <https://www.telegraph.co.uk/global-health/science-and-disease/vaccinating-the-world/>] Justin

[Vaccine hesitancy has also reared its head](https://www.telegraph.co.uk/global-health/science-and-disease/hesitancy-hard-wired-us-indulge-now-peril/), with concerns around rare blood clots linked to the AstraZeneca and J&J vaccines hitting public confidence in Africa. The Democratic Republic of Congo sent 1.3m unwanted doses to countries including Togo and Senegal before they expired in late June, while Malawi destroyed 20,000 unused shots last month as hesitancy hit rollout. “There were some assumptions in the public health community that this is such a bad pandemic... that this will change people’s minds if they were ever hesitant about vaccines,” Prof Heidi Larson, director of the Vaccine Confidence Project, told a Devex event. “Well, it hasn’t really – in fact, the groups and the questioning around vaccines and some of the anti sentiments have actually escalated.” There are also growing concerns that the AstraZeneca and J&J vaccines may be viewed as the “cheap relation” compared to the new mRNA vaccines produced by Pfizer and Moderna. Given the former make up the bulk of Covax’s supply and are far easier to distribute in the developing world, this is a substantial hurdle. “The AstraZeneca row has significantly impacted confidence – not just across Africa, but around the world,” says Dr Ayoade Alakija, co-chair of the Africa Union Vaccine Delivery Alliance. “But there is no choice here [to pick a different vaccine].” However, back in Kumasi, Mr Nyarko says it is supply rather than confidence that is currently undermining his district’s roll out. And with no clear picture on when more shots will arrive, he’s left with few options. “All we can do for now is pray that Ghana can secure another batch,” he says. “We are praying that the UK and Europe will help us.