### AC – Inequality

#### The Advantage is Inequality

#### The status quo ensures vaccine imperialism. Intellectual property law is the lynchpin of North-South health inequality and has empirically resulted in disparate life outcomes.

Vanni 21 – Dr. Amaka Vanni is Lecturer in Law at the University of Leeds. ("On Intellectual Property Rights, Access to Medicines and Vaccine Imperialism," 3-23-2021, <https://twailr.com/on-intellectual-property-rights-access-to-medicines-and-vaccine-imperialism/>) julian

While the response to COVID-19 has shown what can be accomplished when the world works together, it has also underscored three interrelated points. First, the neoliberal framework – including the critical role intellectual property (IP) law plays in constituting this form of civilisation – is an unsuitable model for delivering the goods needed to respond to global health emergencies. The current economic/market system does not allow for equitable responses to infectious diseases, particularly access to sufficient medical and health resources. This inequity was obvious in the early days of the pandemic when test kits, PPEs, and ventilation machines were being distributed on the basis of who could pay the most rather than who needed them the most. Second, the beggar-thy-neighbor response currently adopted by developed countries hurts everyone because failing to stop the spread of the virus globally allows more mutations, which makes existing vaccines less effective. As COVID-19 has shown, no one is safe until everyone is safe. Yet, despite this warning, the hoarding of vaccines by developed countries continues unabated and speaks to the wider racist capitalist system we live in. If anything, this crude accumulation of vaccines reinforces North-South economic and political dominance and marks, as Onur Ince observes, the conceptual locus of political violence operative in the global genealogy of capitalism.

Third, while COVID-19 may endanger us all, it is far more costly to some than others. Numerous reports have shown how black and brown people are most impacted by the pandemic. In the United States, for example, indigenous Americans have the highest COVID-19 mortality rates nationwide while African American communities have COVID-19 mortality that is 2.3 times higher than the rate for Asians and Latinxs, and 2.6 times higher than the rate for Whites. Similar data is also emerging in the UK where people from black and minority ethnic groups are at greater risk of dying from coronavirus. This means those groups suffer higher loss of life compared to other racial groups due to inequities in healthcare access as well as higher rate of pre-existing conditions. In other parts of the world, the most vulnerable and the economically marginalized such as those working in the informal sector and living in shanty towns are feeling the effects of the pandemic the most. In Latin America and the Caribbean, 70 per cent of domestic workers have been affected by the pandemic where most have stopped receiving income. In Ghana, residents of slums at Old Fadama – a suburb in Accra – were made homeless when the government demolished their homes. The ensuing homelessness means there is little to no space of observing social distancing rules, access to running water and access to other resources to practice basic hygiene. Meanwhile in India, the pandemic has unsurprisingly hit the country along caste lines where the Dalits are most impacted because many are poor and have limited access to healthcare.

As Kimberlé Williams Crenshaw reminds us, the high number of minority deaths is not new. Rather, this crisis simply amplified racism and other forms of structural inequality as a pre-existing condition – an intersectional issue – where those disproportionately hurt are those who are already structurally marginalized. Thus, while recognising a broken global IP regime that triggered the scramble for vaccines, the racialized impact of the pandemic cannot be ignored, and it points to the entangled roots of race and capitalism.

The rest of this analysis takes a close look at some of the legal, political and economic forces that have animated IP rights and access to COVID-19 vaccine. It will focus on how the entanglement of corporate capture of global IP regime, state complicity and vaccine imperialism have come together to shape public health responses to the pandemic. It underscores how the law, in this case international IP law, consistently shelters capital and operates as an expression to further corporate pharmaceutical interests. If there is a lesson to be gleaned from this pandemic, it is that intellectual property is not failing us but is functioning the way it is set up to do. As the history of IP globalization has shown, the World Trade Organization’s (WTO) Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS Agreement) is a transplant of the Euro-American model of property, driven by multinational corporations who used their respective national governments to underwrite and export their domestic IP claims. Therefore, it is unsurprising that this international legal regime employed to advance the interests of particular classes, nations and regions at the expense of others continues to reproduce extreme inequality with human costs.

#### The TRIPS IP regime is at the heart of that imbalance. It creates a privileged class with access to medicine and locks in data exclusivity and evergreening practices that delay the entrance of generic medicines into the market, which would decrease prices.

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Intellectual property rights (IPRs) are time-limited legal rights granted to inventors and creators. IPRs include copyrights, trademarks, patents, trade secrets, and geographical indications, while protected subject-matters include, but are not limited to, brands, inventions, designs, and biological materials. Importantly, IPRs overlap as a product may be covered by a series of rights. For example, a pharmaceutical medicine, defined by Britannica as a ‘substance used in the diagnosis, treatment, or prevention of disease’, is protected by patents, trademarks, and trade secrets. **Patents are the most common form of IPR used** for the protection of innovation in pharmaceuticals. Patents grant inventors limited market exclusivity for their inventions, and, in exchange, the inventor must disclose sufficient information such that competitors will be able to step into the market. This disclosure allows a competitor to make preparation to enter the market at the end of the monopoly period. Due to this legally-mandated exclusivity, patent owners – usually multinational corporations – have the right to prevent others from making, using, or selling a patented invention. The TRIPS Agreement, concluded as part of the Uruguay Round of multilateral trade negotiation and in force since 1995, provides a minimum of 20 years patent protection. The belief is that the duration allows corporations to recoup the expenses of developing, testing and upscaling an innovative pharmaceutical product.

From the onset, the TRIPS IP regime created imbalance between innovation, market monopoly, and medicines access, because it failed to take into consideration the health burden, development needs and local conditions of the various countries that make up the WTO. This has led to several issues. First, the market monopoly of IP rights, which allows the corporation to set the market for drugs, has created a privileged societal class with access to lifesaving medication distinguishing them from those excluded from access to available medications. This phenomenon is vividly illustrated in the HIV/AIDS crisis of the 1990s and early 2000s. While HIV/AIDS patients in developed countries were able to afford antiretroviral (ARVs) treatments, which had been developed, approved and patented as early as 1987, many patients in Africa and other parts of the developing world could not afford the approximately USD 12,000 per annum treatment at that time. By 2001, approximately 2.4 million people in the region had died of AIDS. The South African government intervened to reduce the cost of ARVs by amending its domestic patent laws to allow the authorization of parallel imports of patented pharmaceuticals and to encourage the use of generic drugs, but it was sued by the US industry group Pharmaceutical Research and Manufacturers of America (PhRMA). Though the lawsuit was eventually dropped, it highlights the measures pharmaceutical corporations, backed by some national governments, are willing to take to protect their profits at the cost of human lives. Significantly, we see how law (or the threat of legal action) is used not only to protect and expand the profitability of a certain kind of property but, as Anjali Vats and Deidré Keller have taught us, also reveals IP law’s racial investments in whiteness and its continuing implications for racial (in)equality, particularly in the way it informs systems of ownership, circulation, and distribution of knowledge. Similarly, Natsu Saito takes up the analysis of IP, race and capitalism by theorizing some of the ways in which ‘value’ in IP law concentrated in the hands of large corporations is calculated in terms of its profitability rather than what it contributes to the well-being of society. However, the proverbial chickens have come home to roost as even rich countries are beginning to feel the bite of the dysfunctional IP system.

The issue of excessive pricing for medicines is a growing problem in developed countries as well and has now become the single biggest category of healthcare spending in these states, particularly the US. An empirical report by I-MAK reveals how excessive pharmaceutical patenting is extending monopolies and driving up drug prices. The report, for example, notes that over half of the top twelve drugs in the US have more than 100 attempted patents per drug. Specifically, the report revealed that Humira® by AbbVie (used in the treatment of Crohn’s disease and the US’s highest grossing drug) has been issued 130 patents. The drug costs USD 44,000 annually and generated more than USD 19.2 billion for the company in 2019 alone. The Report also notes that the first patent filed for Herceptin® – used in the treatment for certain breast and stomach cancers – was in 1985 but currently has pending patent applications that could extend its market monopoly for 48 more years. Meanwhile, Celgene has over 105 patents for its oral cancer drug Revlimid® (used in the treatment of multiple myeloma) extending its monopoly until the end of 2036 – a patent lifespan of 40 years. In addition to excessive patenting and pricing, we have also come to understand the power of data in this context.

Second, regulatory agencies worldwide require drugs to undergo safety and efficacy testing to ensure they are harmless before approval. These tests, known as clinical trials, involve human subjects and are costly because they can run up to three separate phases. The data collected during these clinical trials are the proprietary materials of the company conducting the tests. Because it is expensive and time-consuming, generic drug companies usually rely on the safety and efficacy data of brand name companies to seek regulatory approval as long as they can prove their generic version is chemically and biologically equivalent to the original. Relying on the test data of brand name companies reduces the production cost for generic medicines and allows for quicker market entry. However, recent years have seen a promotion of time-limited, legally mandated protection against the non-proprietary use of such data by generic companies. This is known as data exclusivity. Put differently, data exclusivity is a period when a generic company cannot use the clinical trial data of an innovator pharmaceutical company to receive regulatory approval for a generic medicine. In so doing, data exclusivity provides a layer of protection in addition to patent protection to further delay market entry of generic medicines.

Data exclusivity periods vary depending on the jurisdiction. For example, it is twelve years in US and ten years in the EU. While the TRIPS Agreement does not create property rights over registration data, the US and the EU have continued to champion and export data exclusivity through free trade agreements, particularly for biologics. For example, the US Affordable Health Care for America Act in 2009 extended a 12-year exclusivity period for biologics. This US interpretation for registration data was also included in the United States-Mexico-Canada Agreement (USMCA), which sought a 10-year data exclusivity for new biologics. However, after intense negotiations, the data exclusivity protection was reduced to 5 years for new pharmaceuticals. In this instance, we see a crystallising of Euro-American ideas of property and a willingness to promote those property interests through the law, both domestic and international. In fact, certain scholars assert that this pursuit of higher TRIPS standards is driven, in part, by the US desire to achieve levels of protection it anticipated from the TRIPS Agreement but failed to secure. Given the influence of the industry and its representative group, PhRMA, in seeking stronger protection on a global scale, it is not surprising that the US’s post-TRIPS policies continue to rachet up standards in ways that undermine access to affordable medicines, and perpetuate social hierarchy and subordination.

Third, patent practices in recent decades have seen pharmaceutical companies engaging in trivial and cosmetic tweaking of a drug whilst still reaping the benefit of 20 years of patent protection. This tweaking sometimes involves making minor changes to patented drugs, such as changes in mode of administration, new dosages, extended release, or change in color of the drug. These changes normally do not offer any significant therapeutic advantage even though pharmaceutical companies argue they provide improved health outcomes to patients. These additional patents on small changes to existing drugs, known as evergreening or patent thickets, block the early entry of competitive, generic medicines that drive medicine prices down. For example, while not mandated by TRIPS, many US led TRIPS-plus free trade agreements have expanded the scope for evergreening. These include the US-Jordan FTA (2000), US-Australia FTA (2004) as well as the US-Korea FTA (2007), which allow for the patenting of new forms, uses, or methods of using existing products.

The cancer drug Gleevec®, owned by Novartis, is another example of how pharmaceutical companies often secure patents on new, more convenient versions with marginal therapeutic benefit to patients whilst blocking the entry of generic medicines. In 2013, Novartis’ patent application for Gleevec®– the β crystalline form of the salt imatinib mesylate – was rejected by the Indian Supreme Court because it lacked novelty. However, the company has secured patents for this product in other jurisdictions such as the US and has maintained a high price of Gleevec there. But in India the price of Gleevec® was reduced from approximately USD 2,200 to USD 88 for one month’s treatment in the generic drugs market as a result of the 2013 Indian Supreme Court judgement. Novartis is not the only culprit. The depression drug Effexor® by Pfizer was granted an evergreen patent when the company introduced an extended-release version, Efexor-XR®, even though there was no additional benefit to patients. Eventually, the patent was declared invalid, but by then it had already cost an estimated USD 209 million to Australian taxpayers and kept generic competition off the market for two and a half years. In another instance, Pfizer went on to secure an additional patent for the Pristiq®, which contained identical chemical compound as Efexor-XR®,and again with no added therapeutic benefit.

These evergreening practices, of course, have material effects. Apart from delaying the entry of generic versions, they give brand-name pharmaceutical companies free reign in the market, which allows them to set the market price. Recent years have seen monopoly prices rise exorbitantly causing significant financial strain to patients, domestic healthcare services and even insurance companies in developed countries. A notorious example is Martin Shkreli, who in 2015 bought the rights to an anti-malarial drug, then raised the price by 5,000 per cent from a cost of USD 13.50 to USD 750. Similarly, a white paper by I-MAK shows how excessive patenting and related strategies are driving families to overspend on lifesaving medicines. Celgene, the makers of Revlimid® raised the price of the drug by more than 50 per cent since 2012 to over USD 125,000 per year of treatment. Using the example of Solvadi® by Gilead, which costs USD 84,000 per treatment, Feldman notes the drug would cost the US Department of Defense more than USD 12 billion to treat all hepatitis-infected patients in US Veterans Affairs. But the US is not alone. In Europe, expensive drugs have prompted a growing backlash against pharmaceutical corporations. Reacting to these price hikes, Dutch pharmacies are bypassing these exorbitant prices by preparing medicines in-house for individual patients. The broken IP system ranging from an extraordinarily low standard for granting patents to permissions of patent thickets around a single molecule has not only severely distorted the system of innovation, but they have also skewed access to life-saving drugs. As a result, prices for new and existing medicines are constantly rising, making essential medicines inaccessible for millions of people around the world.

#### Vaccine imperialism inevitably commodifies medicine and results in vaccine nationalism that magnifies North-South health disparities.

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The development and dissemination of COVID-19 vaccines has highlighted how the international legal system pertaining to global health is driving global health inequalities instead of alleviating them. As a result, in part, of neocolonial ‘development’ models that promote inequitable IP laws, most of the vaccine supply has been manufactured in the Global North and purchased by governments in those countries to be stockpiled for their own populations—a practice sometimes described as ‘vaccine hoarding’ or ‘vaccine nationalism’.19 20

Even where countries in the Global South have produced vaccines themselves in significant quantities, they have sometimes been guilty of perpetuating inequity of other Global South countries through vaccine nationalism and vaccine diplomacy, in which vaccines are offered to poorer countries in order to achieve geopolitical objectives.21 22 A decolonised approach to global health enables us to conceptualise this behaviour as a reproduction of a neocolonial system which pits some formerly colonised countries against others.23 24 This has meant that some countries in the Global South also benefit from this uneven system, and they too contribute to the exploitation of poorer countries in the Global South.21

Although the WHO cocreated the COVAX Facility, a donor-funded mechanism that seeks to pool procurement to enhance access to vaccines for LMICs, the charitable funding scheme is facing a serious shortfall in meeting global needs. The WHO has estimated that most people in LMICs will not be vaccinated until the end of 2023,25 and even this estimate may be optimistic, given the delays in initial distributions through COVAX.26

This prompts the obvious question: How is it that existing legal mechanisms, or at least the prevailing interpretations and understandings of them, have permitted and even enabled this inequity? International IP law embedded in international trade agreements allows pharmaceutical companies time-limited rights to prevent others from making, using or selling their patented invention without permission. Under the 1995 Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS), which was included in the Uruguay Round of multilateral trade negotiation, pharmaceutical companies have at least 20 years from filing a patent to profit from their investments in developing, testing and upscaling pharmaceutical products throughout the world.27 This protection is given to pharmaceutical companies to incentivise them to engage in greater research and development for new drugs. However, there is evidence that challenges previous assumptions about the linkages between Research and Development spending and innovation for essential medicines.28 The current COVID-19 crisis has brought this into sharp focus, with projections that the global public sector had spent at least €93 billion on the development of COVID-19 vaccines and therapeutics—€85.6 billion of this on vaccines.29

Global IP rights, whether adopted in accordance with TRIPS, or subsequent bilateral and multilateral agreements, are part of a wider legal system which facilitates global neocolonialism. For instance, powerful actors such as the European Union (EU) and the USA have included TRIPS-plus provisions in bilateral and multilateral agreements. These agreements often force countries of the Global South to concede to more stringent patent protections in order to gain trade advantages and also to escape trade sanctions.30

In so doing, IP law commodifies medicines that are essential to human survival and well-being, and sacrifices the lives and health of the poor and otherwise marginalised on the altar of corporate profitability.31 Common interpretations and understandings of the international IP system are that healthcare goods and services derive their value from their tradability.14 (‘We use the term “public good” as it is used in global health to mean a good that should be available universally because of its critical importance to health, and not as the term is used in economics to mean a good that is both non-excludable and non-rivalrous.’)14 32 However, many, including critical Global South scholars, have questioned the prioritisation of property rights (including IP rights) over other rights (especially the rights to health, life and equal benefit from scientific progress) in a manner that is inconsistent with international human rights law.31

Many low-income countries have long been active in resisting the IP system as an unjust extension of a colonial trade system. At the height of the HIV pandemic, in which millions of people in the Global South were denied lifesaving medicines, civil society treatment access campaigns galvanised states within the World Trade Organization (WTO) into agreeing to the Doha Declaration on TRIPS and Public Health.33 This WTO Declaration recognises human rights and allows states to use all of the ‘flexibilities’ within the TRIPS regime to protect public health, acknowledging the need for access to medicines in a public health emergency.34 However, this international consensus on IP has always been strongly contested by pharmaceutical companies and their host governments, predominantly in the Global North.

This remarkably strong resistance to employing TRIPS flexibilities has continued in the current COVID-19 crisis, as the attempts of countries largely from the Global South to try to obtain a TRIPS waiver to increase their supply of vaccines for COVID-19 have been unsuccessful. Although the USA has recently supported a watered-down version of a TRIPS waiver, it remains far from certain whether other states in the Global North will support this prioritisation of health over IP rights, or whether this would be sufficient, as we discuss in the section on flexibilities below.

Rather than allowing for equitable vaccine access as a human right for all people everywhere, states have instead turned to a charitable donation and market purchase scheme through the COVAX initiative. This type of model, which focuses on charity and not rights, is consistent with exactly the kind of understandings of human rights and public health that are in need of decolonisation. While there have been public consensus statements issued by the Human Rights Council, in which states have agreed that all states have the right to access vaccines and the right to use TRIPS flexibilities, this statement reflects a disappointing failure to acknowledge any corresponding state obligations to employ such flexibilities.35 This has allowed countries from the Global North, and their few Global South allies, to agree to this statement and support the right to vaccine access rhetorically, and in principle within the Human Rights Council, while resisting any calls for a TRIPS waiver within the WTO, and thus consolidating a denial of their obligations to employ TRIPS flexibilities.

#### Status quo distribution results in disparities between nations. That results in colonial hierarchies of health.

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The current global distribution of COVID-19 vaccines is largely dictated by power disparities and inequities in financial and other resources, with predominantly high-income countries contracting bilaterally with individual pharmaceutical companies (many in their own countries) for specific vaccines, leaving countries from the Global South facing inequitable vaccine access. Bilateral deals between states and pharmaceutical companies, whether completed by Global North or Global South states, significantly compromise the effectiveness and equity of the COVAX initiative, limited as it already is by the coercive influence, vested interests and participation of pharmaceutical companies and their host nations. The African Union, for example, endorsed the TRIPS waiver to relax WTO rules so that LMICs could create their own COVID-19 vaccines, but this collective effort across African countries faced resistance from Global North countries and pharmaceutical companies.

The IP system appears to have pushed countries in the Global South that may prefer not to be dependent on the charitable model of the COVAX scheme to join high-income countries in engaging directly with manufacturers to purchase COVID-19 vaccines. This has included African countries, despite the African Union’s criticism of the inequities resulting from IP law protections. This process has reproduced colonially entrenched power dynamics, in which poorer countries lack the bargaining power to obtain competitive rates and, consequently, typically end up paying far more than the wealthier, developed countries. More broadly, countries in the Global South are pressured into participating in global systems of trade that result in the exploitation of their own populations by unjust global economic systems and IP laws.39 The high cost of vaccines for countries from the Global South constitutes a large proportion of their health expenditure, and this comes at the expense of other health priorities.

In many cases, the only way in which Global South countries can purchase vaccines is to move themselves further into debt. Given the detrimental neocolonial implications of debt, with a long history of loan conditionalities through structural adjustment programmes, increasing debt to service health needs contributes to the worsening of inequalities between the Global North and Global South.40 These programmes may increase debt and undermine development in ways that limit the realisation of the right to health.41 The World Bank has set aside US$12 billion and has already disbursed loans of US$500 million for vaccines in low-income and middle-income nations;42 poorer nations, instead of servicing already depleted health systems, are forced to divert additional funds to servicing debt.

#### It also results in inequalities within nations. Politicians create a hierarchy of access, which feeds racism, classism, and corruption.

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The high costs of vaccines also propagate inequalities within nations, as desperate countries try to recoup some of the costs by charging their people for vaccine access or using complex arrangements that prioritise some people over others. Egypt, for instance, is charging for the COVID-19 vaccine, which is likely to exclude the poorest people, who have already been severely affected by the crisis.43 In reality, it also means that wealthier individuals are prioritised, as they usually find it easier to pay for access. Those able to access vaccines in these countries, very often a small economic and political elite, are often in positions of power precisely along the lines of existing global inequalities and often to the prejudice of groups marginalised on the basis of gender, race and other grounds of discrimination prohibited under international human rights law.

Facilitating vaccine access for more affluent members of society reinforces power structures at the expense of marginalised populations. In South Africa, conservative non-governmental organisations aligned closely with the interests of the white minority and elite corporate interests launched a court challenge in order to procure private supplies of vaccines, bypassing the nationwide mechanisms set up by the government to ensure equitable vaccine access. However, having faced opposition from human rights activists and the South African government, this litigation was ultimately withdrawn. (For more information on this litigation see ref 44 45.) Kenya has also prioritised diplomats for COVID-19 vaccination at the expense of health workers, and Indonesia has suggested that the ‘more productive’ members of society be vaccinated first.46 47 In other countries, such as Peru, political elites and their families and friends were secretly vaccinated before the broader populations. (See as examples ref 48 49.)

An important issue at the boundary of national and international concerns is the potential use of ‘vaccine passports’.50 Free movement of goods is integral to one of the core objectives of the IHR, and yet many governments are proposing the use of COVID-19 vaccination passports as a mechanism for reopening their economies, which would discriminate against those who have not been vaccinated. The EU introduced vaccine passports in the summer of 2021 for entry into the eurozone and excluded vaccines that were made from the Serum Institute in India which is responsible for the majority of vaccines provided in the Global South.51 Vaccination disparities both within and between countries mean that many people in LMICs are unlikely to be vaccinated until 2023; therefore, vaccine passports would only further exacerbate both national and global inequalities and disproportionately restrict the rights of large swathes of the global population from exercising their right to freedom of movement on an equal basis.

#### This means COVID and future pandemics will reproduce untenable working conditions and racialized and classed life outcomes.

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The COVID-19 pandemic has revealed the lethal consequences of the sharp rise in economic inequality, the concentration of wealth in fewer and fewer hands and the increasing precarity of labour. For example, as COVID-19 slammed Manhattan, members of the top 1% flocked to their beach retreats in the Hamptons to ride out the contagion (Sellinger 2020). Meanwhile, ‘essential workers’ at the bottom of the contemporary economic hierarchy had no options but to continue to show up for work and face exposure to the deadly virus. First responders, bus drivers, nursing home workers, janitors, postal workers, grocery stockers, agricultural workers, Wal-Mart employees, Amazon warehouse workers, delivery drivers, and meat packers—many earning minimum wage and most without employer-subsidized health insurance or other benefits—had to keep working. As Bertha Bradley, a food service worker in North Carolina stated, ‘I don’t get health benefits, I don’t get sick time, I don’t get paid vacations, I don’t get a living wage’ (Jaffe and Chen 2020: 126). Katie Pine and Kate Henne refer to them as ‘new risk workers’, many of whom are given mandates for minimizing risk but few resources to implement them (Pine and Henne 2020). For example, in the John H. Stroger Hospital in Chicago, nurses were being told to reuse N95 masks, ‘sometimes up to forty-five days’ (Jaffe and Chen 2020: 138). By contrast, knowledge workers could work from the safety of their own homes and reduce their risks of becoming infected.

COVID-19 has disproportionately attacked communities of colour, compounding economic inequality and systemic racism. It is clear that ‘race matters for the way that markets have been built historically and function today’ (McNamara and Newman 2020: 6). As Presidential candidate Joe Biden pointed out during the presidential debate in September 2020, 1 out of every one-thousand African Americans in the US has died from COVID-19. In Chicago about 70% of the COVID deaths were African Americans (Jaffe and Chen 2020: 140). The UN Secretary-General António Guterres pointed out that COVID-19 ‘is exposing fallacies and falsehoods everywhere … the delusion that we live in a post-racist world, the myth that we are all in the same boat’ (Guterres 2020). In September, Citigroup released a report that systemic racism, discrimination against African Americans, has cost the economy $16 trillion (Akala 2020).

Many of the precariat are people of colour, recent immigrants and undocumented workers. By May 2020 slaughterhouses around the world became virus hot spots and exposed multiple layers of dysfunction. The meat processing industry is highly consolidated, dominated by global multinational corporations including Cargill, JBS, Smithfield and Tyson. Since the 1980s this industry has pursued the financialized model of consolidation and vertical integration, ‘aimed at increasing profits through efficiency and low wages’ (van der Zee et al. 2020). Many migrant workers in these plants live in communal housing; crowded working conditions, large plants and cramped housing, and lack of paid sick leave all exacerbate the spread of coronavirus in these environments. Indeed, Tyson was even offering workers $500 bonuses to keep working in the midst of plant outbreaks (van der Zee et al. 2020). Workers are shouldering all of the risk as slaughterhouse companies get the rewards. Structures of the global economy, including financialization and monopoly capitalism have amplified the dangers of the pandemic and pushed people further ‘into unequal groups that are not only divided by money but by matters of life and death’ (McNamara and Newman 2020: 11; Sell and Williams 2019).

#### The plan reverse casually ensures the reduction of vaccine imperialism.

Vanni 21 – Dr. Amaka Vanni is Lecturer in Law at the University of Leeds. ("On Intellectual Property Rights, Access to Medicines and Vaccine Imperialism," 3-23-2021, <https://twailr.com/on-intellectual-property-rights-access-to-medicines-and-vaccine-imperialism/>) julian

Despite calls to make COVID-19 vaccines and related technologies a global public good, western pharmaceutical companies have declined to loosen or temporarily suspend IP protections and transfer technology to generic manufacturers. Such transfer would enable the scale-up of production and supply of lifesaving COVID-19 medical tools across the world. Furthermore, these countries are also blocking the TRIPS waiver proposal put forward by South Africa and India at the WTO despite being supported by 57 mostly developing countries. The waiver proposal seeks to temporarily postpone certain provisions of the TRIPS Agreement for treating, containing and preventing the coronavirus, but only until widespread vaccination and immunity are achieved. This means that countries will not be required to provide any form of IP protection on all COVID-19 related therapeutics, diagnostics and other technologies for the duration of the pandemic. It is important to reiterate the waiver proposal is time-limited and is different from TRIPS flexibilities, which are safeguards within the Agreement to mitigate the negative impact of patents such as high price of patented medicines. These safeguards include compulsory licenses and parallel importation. However, because of the onerous process of initiating these flexibilities as well as the threat of possible trade penalties by the US through the United States Trade Representative (USTR) “Special 301” Report targeting countries even in the absence of illegality, many developing countries are reluctant to invoke TRIPS flexibilities for public health purposes. For example, in the past, countries such as Colombia, India, Thailand and recently Malaysia have all featured in the Special 301 Report for using compulsory licenses to increase access to cancer medications. It is these challenges that the TRIPS waiver seeks to alleviate and, if approved, would also provide countries the space, without fear of retaliation from developed countries, to collaborate with competent developers in the R&D, manufacturing, scaling-up, and supply of COVID-19 tools. However, because this waiver is being opposed by a group of developed countries, we are grappling with the problem of artificially-created vaccine scarcity. The effect of this scarcity will further prolong and deepen the financial impact of this pandemic currently estimated to cost USD 9.2 trillion, half of which will be borne by advanced economies. Thus, in opposing the TRIPS waiver with the hopes of reaping huge financial rewards, developed countries are worsening pandemic woes in the long term.

Another kind of scarcity caused by vaccine nationalism has also reduced equitable access. Vaccine nationalism is a phenomenon where rich countries buy up global supply of vaccines through advance purchase agreements (APA) with pharmaceutical companies for their own populations at the expense of other countries. But perhaps it is time to reorient our sight and call the ongoing practices of buying up global supply of vaccine what it truly is – vaccine imperialism. If we take seriously the argument put forward by Antony Anghie on the colonial origins of international law, particularly how these origins create a set of structures that continually repeat themselves at various stages, we will begin to see COVID-19 vaccine accumulation not only as political, but also as imperial continuities manifesting in the present. Take, for instance, the report released by the Duke Global Health Innovation Center that shows that high-income countries have already purchased nearly 3.8 billion COVID-19 vaccine doses. Specifically, the United States has secured 400 million doses of the Pfizer-BioNTech and Moderna vaccines, and has APAs for more than 1 billion doses from four other companies yet to secure US regulatory approval. The European Union has similarly negotiated nearly 2.3 billion doses under contract and is negotiating for about 300 million more. With these purchases, these countries will be able to vaccinate their populations twice over, while many developing states, especially in Africa, are left behind. In hoarding vaccines whilst protecting the IP interests of their pharmaceutical multinational corporations, the afterlife of imperialism is playing out in this pandemic.

Moreover, these bilateral deals are hampering initiatives such as the COVID-19 Vaccine Global Access Facility (COVAX) – a pooled procurement mechanism for COVID-19 vaccine – aimed at equitable and science-led global vaccine distribution. By engaging in bilateral deals, wealthy countries impede the possibility of effective mass-inoculation campaigns. While the usefulness of the COVAX initiative cannot be denied, it is not enough. It will cover only the most vulnerable 20 per cent of a country’s population, it is severely underfunded and there are lingering questions regarding the contractual obligations of pharmaceutical companies involved in the initiative. For instance, it is not clear whether the COVAX contract includes IP-related clauses such as sharing of technological know-how. Still, even with all its faults, without a global ramping-up of production, distribution and vaccination campaigns via COVAX, the world will not be able to combat the COVID-19 pandemic and its growing variants. Health inequity and inequalities in vaccine access are not unfortunate outcomes of the global IP regime; they are part of its central architecture. The system is functioning exactly as it is set up to do.

These events – the corporate capture of the global pharmaceutical IP regime, state complicity and vaccine imperialism – are not new. Recall Article 7 of TRIPS, which states that the objective of the Agreement is the ‘protection and enforcement of intellectual property rights [to] contribute to the promotion of technological innovation and to the transfer and dissemination of technology’. In similar vein, Article 66(2) of TRIPS further calls on developed countries to ‘provide incentives to enterprises and institutions within their territories to promote and encourage technology transfer to least-developed country’. While the language of ‘transfer of technology’ might seem beneficial or benign, in actuality it is not. As I discussed in my book, and as Carmen Gonzalez has also shown, when development objectives are incorporated into international legal instruments and institutions, they become embedded in structures that may constrain their transformative potential and reproduce North-South power imbalances. This is because these development objectives are circumscribed by capitalist imperialist structures, adapted to justify colonial practices and mobilized through racial differences. These structures are the essence of international law and its institutions even in the twenty-first century. They continue to animate broader socio-economic engagement with the global economy even in the present as well as in the legal and regulatory codes that support them. Thus, it is not surprising that even in current global health crisis, calls for this same transfer of technology in the form of a TRIPS waiver to scale up global vaccine production is being thwarted by the hegemony of developed states inevitably influenced by their respective pharmaceutical companies. The ‘emancipatory potential’ of TRIPS cannot be achieved if it was not created to be emancipatory in the first place. It also makes obvious the ways international IP law is not only unsuited to promote structural reform to enable the self-sufficiency and self-determination of the countries in the global south, but also produces asymmetries that perpetuate inequalities.

### AC – Plan

#### Plan – The member nations of the World Trade Organization ought to reduce intellectual property protections for medicines.

#### Flexibilities are insufficient.

Seklala et al 21 – Sharifah Sekalala, Warwick Law School, University of Warwick, Coventry, UK; Lisa Forman, Dalla Lana School of Public Health, University of Toronto, Toronto, Ontario, Canada; Timothy Hodgson, International Commission of Jurists, Johannesburg, South Africa,;Moses Mulumba, Center for Health, Human Rights and Development, Kampala, Uganda; Hadijah Namyalo-Ganafa, School of Law, Makerere University, Kampala, Uganda; Benjamin Mason Meier, Department of Public Policy, University of North Carolina at Chapel Hill, Chapel Hill, North Carolina, USA (“Decolonising human rights: how intellectual property laws result in unequal access to the COVID-19 vaccine,” 2021, pg. 4) julian

Although countries from the Global South have the option of engaging TRIPS flexibilities in the absence of a general waiver, they often do not do so because the process of using these flexibilities is often stacked against them, reproducing neocolonial dynamics. For instance, TRIPS allows states with limited manufacturing capacity to waive a patent for a limited duration so as to import essential medicines through a compulsory licence. However, in practice, this process is lengthy and complex, as it relies on ensuring that both the importing and exporting countries have enacted local laws that permit them to use TRIPS flexibilities. Further, the importing country needs to negotiate with the pharmaceutical company in order to establish a fair price, which is always tricky, but made significantly more difficult in a crisis. To date, this process has been used only once, when Rwanda obtained access to generic antiretrovirals through an importation agreement with the Canadian company Apotex. However, even in that context, although Rwanda notified the WTO Council of its intention to use the mechanism in July 2007, it took 15 months before it could import its first batch of antiretrovirals. Despite its strong support, the manufacturer Apotex felt that the process was too cumbersome to use again.36

This complexity has been heightened during the COVID-19 crisis due to the speed at which vaccines were manufactured, which has created a lack of transparency around the patent process.37 Thus, the Bolivian government, which is seeking to use TRIPS flexibilities through compulsory licences, recognises in their application that there is a lack of clarity around the exact extent of product and process patents for any of the existing COVID-19 vaccines due to inadequate information about manufacturing or regulatory processes in different countries.38 Additionally, many countries that have manufacturing capacity, such as those in the EU, have not sought to support countries in the Global South that want to use these flexibilities. In sum, cumbersome rules, political and economic pressures and a lack of transparency conspire to enable the Intellectual Property Regime (IPR) system to sustain and deepen global health inequities.

#### Status quo medical innovation results in inequality, which the aff corrects.

Parthasarathy 20 – Shobita Parthasarathy is Professor of Public Policy and Director of the Science, Technology, and Public Policy Program at University of Michigan. (“Innovation Policy, Structural Inequality, and COVID-19,” 2020, pg. 105-107) julian

(1) Minimal Funding for Health Disparities Research. The US approach to research funding has left us unprepared for and unable to manage the disproportionate health impacts of the virus among people of color, especially Black communities. The NIH, the world’s largest public funder of biomedical research, devotes little money to this subject. One analysis found that it spends 500 times more on genetics research as on structural racism and its impacts on health (Krieger 2005). This is not surprising in a system where scientists drive funding priorities, and where investigators from historically disadvantaged minority groups struggle to receive funding. The needs and concerns of disadvantaged minorities may seem less important or urgent to most scientists (Shavers et al. 2005). But this scarcity has left us without the evidence to understand why communities of color are disproportionately suffering and dying from COVID-19, or what steps to take to address this imbalance.

2) Uncoordinated Research and Development Creates Uneven Access to Diagnostic Testing. Absent the “rigid controls” that Bush dismissed, the US innovation system is highly decentralized and market-driven. So, diagnostic testing for SARS-CoV-2 (the virus that causes COVID-19) has been essentially impossible to coordinate. Traditionally, the Centers for Disease Control and Prevention and public laboratories funded by state and local governments lead infectious disease surveillance, but they have limited capacity (Crawford et al. 2010). The COVID-19 pandemic created demand that far outstripped what these laboratories could provide, but there was no systematic way to expand capacity. A variety of laboratories, including at universities, stepped up, but it remains difficult to connect supply and demand (Maxmen 2020). Different electronic records platforms cannot communicate. Some hospitals have exclusive partnerships with big commercial laboratories. And, even as testing has become more available, white and higher income communities gain access more easily (McMinn et al. 2020).

By contrast, South Korea has been widely praised for its SAR-CoV-2 testing strategy (Thompson 2020). Three weeks after the Chinese government shared the virus’s genome sequence on January 12, the South Korean government approved multiple diagnostic tests developed by its biotechnology sector (The Government of the Republic of Korea 2020). The country’s National Health Insurance Corporation purchased and distributed them. Ultimately, testing was plentiful and widespread, and the government implemented a companion contact-tracing program that minimized the number of COVID-19 cases and deaths.

Certainly, South Korea has learned from its experiences with previous coronaviruses, and benefits from a nationally coordinated healthcare system. But the rapid and straightforward development and distribution of diagnostic testing is also the result of a different approach to innovation policy than what the United States has taken up. Since the 1960s, South Korea’s government has played a major role in shaping research and development including in the industrial sector, by building capacity and setting priorities (Yim and Kim 2005). Government and industry have close professional ties and a sense of shared goals. In the years before COVID-19, for example, the South Korean government funded multiple companies developing viral diagnostic testing (The Government of the Republic of Korea 2020). With these relationships, technologies, and coordination with the healthcare system established, the government was able to immediately ask the private sector to develop SARS-CoV-2 tests. Three of the first five companies to receive emergency regulatory approval had received government funding for their diagnostics research. This proactive capacity building ensured that there was no need to ration testing, and therefore no inequality in access.

(3) Patent Policies Limit Access to Essential Technologies. While patents provide an incentive to innovate, the exclusive rights of commercialization they carry can make the most valuable technologies the most expensive. There is growing concern that COVID-19 treatments and vaccines will be priced out of reach for many, despite their importance for public health and economic recovery. Consider the case of remdesivir, a promising COVID-19 treatment developed with the help of US government and university scientists but which biotechnology company Gilead Sciences has patented and commercialized (Ardizzone 2020). Gilead has a long history of charging high prices for its patented drugs, including hepatitis C drug Sovaldi which costs $84,000 for a 12-week course of treatment (Senior 2014). The company must now balance pressure from its investors against its interpretation of civic duty as it determines pricing for this promising COVID-19 drug.

#### Reject posturing about dangerous development---the west spins false narratives that perpetuates scientific racism.

Merelli 21 (Annalisa Merelli 5-28**.** [(Reporter at Quartz) “Big pharma wants you to think sharing vaccine patents overseas is very dangerous” <https://qz.com/2013661/big-pharma-argues-poor-nations-cant-be-trusted-to-make-vaccines/>] TDI

When it comes to the suspension of patents for Covid-19 vaccines, **it’s big pharma against the world**—or most of it, anyway. Earlier this month, the US government expressed its support of a waiver to the international agreements governing intellectual property rights. The waiver, proposed in November 2020 by India and South Africa, would allow poor countries to produce Covid-19 vaccines without paying pharmaceutical companies for patent rights, at least until the pandemic is over. This would help increase the global supply of vaccines at a lower price, and make progress toward the goal of vaccinating the global population by the end of the year. The proposal, to be negotiated through the World Trade Organization, gained the support of many countries, especially low- and middle-income, but found resistance among rich ones, including the EU, Switzerland, the UK, Australia, Canada and, initially, the US. However, the US lifted its opposition earlier this month to expand vaccine supply and access to bring the pandemic to a faster end. With the US government putting its weight behind the proposal, its approval is much more likely. Vaccine apartheid Waiving the Trade-Related Aspects of Intellectual Property Rights agreement (TRIPS), while also allowing the sharing of manufacturing know-how, is key to boosting the global production of Covid-19 vaccine, advocates say. Ethically speaking, it’s even more urgent now than when the proposal was introduced. The world is experiencing a two-speed pandemic, with wealthy nations moving back toward normalcy, and poor ones experiencing new outbreaks and dealing with a lack of vaccines and therapeutics. It is a situation the World Health Organization (WHO) has denounced as “vaccine apartheid.” But ethics aren’t the only reason to commit to expanding vaccination capacity by any means possible. As long as there are Covid-19 outbreaks, the chance that vaccine-resistant variants might emerge persists—as goes the global health community‘s mantra “Covid anywhere is Covid everywhere.” Yet the pharmaceutical industry isn’t exactly on board with missing out on patent profits. The International Federation of Pharmaceutical Manufacturers and Associations (IFPMA) has expressed disappointment at the US’s stand, claiming the patent waiver won’t help produce more doses, and calling instead for a lowering of trade barriers that would make it easier for western manufacturers to sell vaccines to poorer countries. “The TRIPS waiver […] could spur a spate of confusing, mutually inconsistent, and heavy-handed “compulsory” demands by governments all over the world for supply and technology transfer,” warned Michelle McMurry-Heath, the president of the Biotechnology Innovation Organization, in a statement. **A false risk narrative** The Pharmaceutical Research and Manufacturers of America (PhRMA), the trade organization representing the biggest US drug companies, has published polling results that shows a majority of Americans oppose the waiver. But the framing of their questions betrays the not-so-subtle suggestion that suspending patents would create safety concerns—for those who would receive the vaccines. In one survey, responders were asked whether poorer countries should be allowed to manufacture the vaccines even though they may be less safe. In another, they were asked whether they were concerned about the fact that other countries might not have the same quality standards as the US, or that the risk of getting counterfeit vaccines might be higher if production was expanded to poor countries. Unsurprisingly, a majority of people found these scenarios concerning. The myth that making vaccines in poor countries might be dangerous is very dear to pharmaceutical companies. “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,” wrote Pfizer CEO Albert Bourla in a statement. A narrative as old as AIDS “**The history behind this particular tactic of questioning the safety of manufacturers in other parts of the world has been played out on various** occasions,” says Tahir Amin, the co-founder of I-MAK, a US-based organization working to increase global access to medicines Perhaps the most egregious precedent is the dispute between big pharma and poor countries over the making of antiretroviral drugs for AIDS, which cost about $10,000 per person per year before the introduction of generics that brought the price down to $300 per person per year. A famous episode of that battle culminated in court in 1998, when a coalition of multinational drugmakers and the South African Pharmaceutical Manufacturers Association sued the Nelson Mandela-led South African government for its attempts to encourage the local, patent-free production of more affordable AIDS medications, although eventually the charges were dropped. At the time, western pharmaceutical companies claimed drugs made in developing countries didn’t meet the necessary quality standards, **though research repeatedly found that there was no reason to think so.** “Had it not been for generics manufacturers in the global south, we wouldn’t have gotten more people treated with antiretrovirals, **and we’ve seen that generics are very much safe and the quality is not questioned**,” says Amin. A matter of prejudice Granted, vaccines are more difficult than oral drugs to produce, but big vaccine makers in developing countries including India—the biggest vaccine producer in the world—have long been used by UNICEF and other global development agencies to produce their vaccines, **with constant scrutiny of their quality.** In fact, poor countries have even been able to develop their own vaccines, as is the case of the hepatitis B vaccine developed by Shanta Biotechnics in India. The price of the vaccine made by western countries ($23 per dose in the 1980s) was prohibitive, so a local pharmaceutical company set out to develop its own formulation, at a cost of $1 per dose. This led to a mass inoculation against the virus, with over 120 million doses distributed worldwide to poor countries. **“There is this ‘scientific racism’ that exists in the west**, that we are still living in colonial times where science was only done by the rich global north,” says Amin. The prejudice that vaccines and drugs made by poorer countries won’t meet the standards of wealthy countries doesn’t just extend to the manufacturing capacity, but to the quality assurance provided by the governing bodies of those countries. Effectively, the US pharma industry is claiming greater expertise at verifying the quality of pharmaceutical products than the national and international bodies working with producers outside the western world. “Nobody wants to see poor quality vaccines, but in this spotlight, I think everyone that is coming up with a version of the vaccine is going to really check their manufacturing practices,” says Amin. What makes the skepticism toward vaccines made in poor countries even more contradictory is that often the actual ingredients bought by western manufacturers to produce their drugs are produced in India or China. **So the very same companies that are raising doubts about the quality of products made by manufacturers in poor countries trust them for their raw materials.**

### AC – Framing

#### The standard is maximizing expected well-being.

#### 1] Government actions will inevitably lead to trade-offs because they benefit some and harm others – aggregation is the only way to resolve these conflicts since A] anything else would unjustifiably prioritize one group over another and B] side constraints would freeze action in the face of tradeoffs. C] No Intent Foresight Distinction - All actions are forward-looking, so intentions are constituted by foreseen consequences. Takes out util calc indicts since they’re empirically denied and link turns them because the alt would be *no* action.

#### 2] Be aware of selection bias and the conjunctive fallacy – each internal-link is a misleading snapshot of risk and infinitely reduces the probability of the next

Conetta 98 (Carl Conetta, Director of the Project on Defense Alternatives, Research Fellow of the Institute for Defense and Disarmament Studies, researcher and awarded author at the Pentagon, US State Department, US House Armed Services Committee, Army War College, National Defense University, and UNIDIR, March 1998, "Global Beat: Dueling with Uncertainty: The New Logic of American Military Planning," Project on Defense Alternatives, http://www.bu.edu/globalbeat/usdefense/conetta0398.html, Accessed: 11-7-2017 /Kent Denver-NK)

Playing with Wild Cards Without doubt, simulations -- including nonstandard ones -- can aid planning. The question is: To what end? And to what effect? Exploring "wild cards" in order to identify warning signs or to define limits is one thing; using them to establish force structure or modernization requirements, quite another. Especially suspect would be using scenarios that are detached from declared US interests to define current requirements; this would put the military "cart" before the political "horse." Another, broader concern is how the effusion of improbable conflict scenarios affects public policy discourse overall. Conflict scenarios, both wild and tame, can gain more credibility in the telling than they deserve. Cognitive researcher Massimo Piattelli-Palmarini calls this the "Othello effect," referring to the trail of plausible but false suppositions that led Othello to murder his wife, Desdemona. Even the most farfetched scenarios comprise a number of steps or links each of which may seem plausible or even probable given the one that came before. Although the likelihood of the scenario dwindles with each step, the residual impression is one of plausibility. Omitted are the many branches at each step that would lead to a neutral or even positive outcome. The resulting snapshots, although numerous, offer a highly-selective view of what the future may hold. And the fact that only the negative outcomes are articulated and exercised can distort the general public impression of risk. Living with Uncertainty There is no escape from uncertainty, but there is relief from uncertainty hysteria. It begins with recognizing that instability has boundaries -- just as turbulence in physical systems has discernable onset points and parameters. The turbulence of a river, for instance, corresponds to flow and to the contours of the river's bed and banks. It occurs in patches and not randomly. The weather also is a chaotic system that resists precise long-range forecasting, but allows useful prediction of broader trends and limits. Despite uncertainty, statements of probability matter. They indicate the weight of evidence -- or whether there is any evidence at all. The uncertainty hawks would flood our concern with a horde of dangers that pass their permissive test of "non-zero probability." However, by lowering the threshold of alarm, they establish an impossible standard of defense sufficiency: absolute and certain military security. Given finite resources and competing ends, something less will have to do. Strategic wisdom begins with the setting of priorities -- and priorities demand strict attention to what appears likely and what does not.

#### 3] Structural violence is the most important impact – ignoring them actively exacerbates exclusion.

Winter and Leighton 99 |Deborah DuNann Winter and Dana C. Leighton. Winter|Psychologist that specializes in Social Psych, Counseling Psych, Historical and Contemporary Issues, Peace Psychology. Leighton: PhD graduate student in the Psychology Department at the University of Arkansas. Knowledgable in the fields of social psychology, peace psychology, and justice and intergroup responses to transgressions of justice “Peace, conflict, and violence: Peace psychology in the 21st century.” Pg 4-5

Direct violence is horrific, but its brutality usually gets our attention: we notice it, and∂ often respond to it. Structural violence, however, is almost always invisible, embedded in∂ubiquitous social structures, normalized by stable institutions and regular experience.∂ Structural violence occurs whenever people are disadvantaged by political, legal,∂ economic, or cultural traditions. Because they are longstanding, structural inequities∂usually seem ordinary—the way things are and always have been. But structural violence∂ produces suffering and death as often as direct violence does, though the damage is∂ slower, more subtle, more common, and more difficult to repair. The chapters in this∂ section teach us about some important but invisible forms of structural violence, and alert∂ us to the powerful cultural mechanisms that create and maintain them over generations.∂ Johan Galtung originally framed the term “structural violence” to mean any constraint∂ on human potential caused by economic and political structures (1969). Unequal accessto resources, to political power, to education, to health care, or to legal standing, are forms of structural violence. When inner-city children have inadequate schools while∂ others do not, when gays and lesbians are fired for their sexual orientation, when laborers∂ toil in inhumane conditions, when people of color endure environmental toxins in their∂ neighborhoods, structural violence exists. Unfortunately, even those who are victims of∂ structural violence often do not see the systematic ways in which their plight is∂ choreographed by unequal and unfair distribution of society’s resources. Such is the∂ insidiousness of structural violence.∂ Structural violence is problematic in and of itself, but it is also dangerous because it∂frequently leads to direct violence. The chronically oppressed are often, for logical∂ reasons, those who resort to direct violence. Organized armed conflict in various parts of∂ the world is easily traced to structured inequalities. Northern Ireland, for example, has∂ been marked by economic disparities between Northern Irish Catholics—who have∂ higher unemployment rates and less formal education—and Protestants (Cairns & Darby,∂ 1998). In Sri Lanka, youth unemployment and underemployment exacerbates ethnic∂ conflict (Rogers, Spencer, & Uyangoda, 1998). In Rwanda, huge disparities in both∂ income and social status between the Hutu and Tutsis eventually led to ethnic massacres.∂ While structural violence often leads to direct violence, the reverse is also true, as∂ brutality terrorizes bystanders, who then become unwilling or unable to confront social∂ injustice. Increasingly, civilians pay enormous costs of war, not only through death, but∂ through devastation of neighborhoods and ecosystems. Ruling elites rarely suffer from∂ armed conflict as much as civilian populations do, who endure decades of poverty and∂ disease in war-torn societies.ecognizing the operation of structural violence forces us to ask questions about how∂ and why we tolerate it, questions that often have painful answers. The first chapter in this∂ section, “Social Injustice,” by Susan Opotow, argues that our normal perceptual/cognitive∂ processes lead us to care about people inside our scope of justice, but rarely care about∂ those people outside. Injustice that would be instantaneously confronted if it occurred to∂ someone we love or know is barely noticed if it occurs to strangers or those who are∂ invisible or irrelevant to us. We do not seem to be able to open our minds and our hearts∂ to everyone; moral exclusion is a product of our normal cognitive processes. But Opotow∂ argues convincingly that we can reduce its nefarious effects by becoming aware of our distorted perceptions. Inclusionary thinking can be fostered by relationships,∂ communication, and appreciation of diversity.∂ One outcome of exclusionary thinking is the belief that victims of violence must in∂ some way deserve their plight. But certainly it is easy to see that young children do not∂ deserve to be victims. The next two chapters in this section address the violence∂ experienced by children. In the first, “The War Close to Home: Children and Violence in∂ the United States,” Kathleen Kostelny and James Garbarino describe the direct and∂ structural violence which children in Chicago and other urban areas of the United States∂ endure, paralleling that experienced by children who live in countries at war. Children∂ who endure these environments often become battle weary, numb, hopeless, and/or∂ morally impaired. But children not only suffer directly from violence, they also suffer∂ from the impaired parenting and communities which poverty inflicts. The authors∂ describe how community and family support mechanisms can mitigate these effects. For xample, home visitation and early childhood education programs provide crucial family∂ and community support.∂ While Kostelny and Garbarino focus on community intervention techniques, Milton∂ Schwebel and Daniel Christie, in their article “Children and Structural Violence,” extend∂ the analysis of structural violence by examining how economic and psychological∂ deprivation impairs at-risk children. Children living in poverty experience diminished∂ intellectual development because parents are too overwhelmed to be able to provide∂ crucial linguistic experiences. Schwebel and Christie’s discussion concludes that∂ economic structures must provide parents with living-wage employment, good prenatal∂ medical care, and high-quality child-care if we are to see the next generation develop into∂ the intelligent and caring citizens needed to create a peaceful world.∂ If children are the invisible victims of society’s structural violence, so are their∂ mothers. In the chapter “Women, Girls, and Structural Violence: A Global Analysis,”∂ Diane Mazurana and Susan McKay articulate the many ways in which global sexism∂ systematically denies females access to resources. From health care and food to legal∂ standing and political power, women and girls get less than males in every country on the∂ planet. Mazurana and McKay argue that patriarchy-based structural violence will not be∂ redressed until women are able to play more active roles making decisions about how∂ resources are distributed.∂ Patriarchal values also drive excessive militarism, as Deborah Winter, Marc Pilisuk,∂ Sara Houck, and Matthew Lee argue in their chapter “Understanding Militarism: Money,∂ Masculinism, and the Search for the Mystical.” The authors illuminate three motives ueling excessive military expenditures: money, which, because of modern market forces,∂ leads half the world’s countries to spend more on arms than on health and education∂ combined; masculinism, which leads societies to make soldiering a male rite of passage∂ and proof of manhood; and the search for the mystical, as men attempt to experience∂ profound human processes of selfsacrifice, honor, and transcendence through war. Like∂ William James, these authors argue that we will need to find a moral equivalent to war, in∂ order to build lasting peace.

#### 4] Non-natural moral facts are epistemically inaccessible

Papineau 07 (David [David Papineau is an academic philosopher. He works as Professor of Philosophy of Science at King's College London, having previously taught for several years at Cambridge University and been a fellow of Robinson College, Cambridge], “Naturalism”. [http://plato.stanford.edu/entries/naturalism/](http://plato.stanford.edu/entries/naturalism/)) 2007)

Moore took this argument to show that moral facts comprise a distinct species of non-natural fact. However, any such non-naturalist view of morality faces immediate difficulties, deriving ultimately from the kind of causal closure thesis discussed above. If **all physical effects are due to a limited range of natural causes, and if moral facts lie outside this range, then it follow that moral facts can never make any difference to what happens in the physical world** (Harman, 1986). At first sight **this** may seem tolerable (perhaps moral facts indeed don't have any physical effects). But it **has** **very awkward epistemological consequences.** For beings like us, **knowledge of the spatiotemporal world is mediated by physical processes involving our sense organs and cognitive systems. If moral facts cannot influence the physical world, then it is hard to see how we can have any knowledge of them.**

#### 5] Flip decision calculus and start with the disad at 0% risk -- exaggerating threats creates bad policymaking -- their existential risk is just as likely to occur if you vote neg as if you vote aff.

Schneier 10 [Bruce Schneier is a fellow at the Berkman Center for Internet & Society at Harvard Law School and a program fellow at the New America Foundation's Open Technology Institute, a Ph. D. from the University of Westminster by the Department of Electronics and Computer Science, “Worst-case thinking makes us nuts, not safe”, 05/12/10, <http://www.cnn.com/2010/OPINION/05/12/schneier.worst.case.thinking/>]

(CNN) -- At a security conference recently, the moderator asked the panel of distinguished cybersecurity leaders what their nightmare scenario was. The answers were the predictable array of large-scale attacks: against our communications infrastructure, against the power grid, against the financial system, in combination with a physical attack. I didn't get to give my answer until the afternoon, which was: "My nightmare scenario is that people keep talking about their nightmare scenarios." There's a certain ~~blindness~~ that comes from worst-case thinking. An extension of the precautionary principle, it involves imagining the worst possible outcome and then acting as if it were a certainty. It substitutes imagination for thinking, speculation for risk analysis and fear for reason. It fosters powerlessness and vulnerability and magnifies social paralysis. And it makes us more vulnerable to the effects of terrorism. Worst-case thinking means generally bad decision making for several reasons. First, it's only half of the cost-benefit equation. Every decision has costs and benefits, risks and rewards. By speculating about what can possibly go wrong, and then acting as if that is likely to happen, worst-case thinking focuses only on the extreme but improbable risks and does a poor job at assessing outcomes. Second, it's based on flawed logic. It begs the question by assuming that a proponent of an action must prove that the nightmare scenario is impossible. Third, it can be used to support any position or its opposite. If we build a nuclear power plant, it could melt down. If we don't build it, we will run short of power and society will collapse into anarchy. If we allow flights near Iceland's volcanic ash, planes will crash and people will die. If we don't, organs won't arrive in time for transplant operations and people will die. If we don't invade Iraq, Saddam Hussein might use the nuclear weapons he might have. If we do, we might destabilize the Middle East, leading to widespread violence and death. Of course, not all fears are equal. Those that we tend to exaggerate are more easily justified by worst-case thinking. So terrorism fears trump privacy fears, and almost everything else; technology is hard to understand and therefore scary; nuclear weapons are worse than conventional weapons; our children need to be protected at all costs; and annihilating the planet is bad. Basically, any fear that would make a good movie plot is amenable to worst-case thinking. Fourth and finally, worst-case thinking validates ignorance. Instead of focusing on what we know, it focuses on what we don't know -- and what we can imagine. Remember Defense Secretary Donald Rumsfeld's quote? "Reports that say that something hasn't happened are always interesting to me, because as we know, there are known knowns; there are things we know we know. We also know there are known unknowns; that is to say we know there are some things we do not know. But there are also unknown unknowns -- the ones we don't know we don't know." And this: "the absence of evidence is not evidence of absence." Ignorance isn't a cause for doubt; when you can fill that ignorance with imagination, it can be a call to action. Even worse, it can lead to hasty and dangerous acts. You can't wait for a smoking gun, so you act as if the gun is about to go off. Rather than making us safer, worst-case thinking has the potential to cause dangerous escalation. The new undercurrent in this is that our society no longer has the ability to calculate probabilities. Risk assessment is devalued. Probabilistic thinking is repudiated in favor of "possibilistic thinking": Since we can't know what's likely to go wrong, let's speculate about what can possibly go wrong. Worst-case thinking leads to bad decisions, bad systems design, and bad security. And we all have direct experience with its effects: airline security and the TSA, which we make fun of when we're not appalled that they're harassing 93-year-old women or keeping first-graders off airplanes. You can't be too careful! Actually, you can. You can refuse to fly because of the possibility of plane crashes. You can lock your children in the house because of the possibility of child predators. You can eschew all contact with people because of the possibility of hurt. Steven Hawking wants to avoid trying to communicate with aliens because they might be hostile; does he want to turn off all the planet's television broadcasts because they're radiating into space? It isn't hard to parody worst-case thinking, and at its extreme it's a psychological condition. Frank Furedi, a sociology professor at the University of Kent, writes: "Worst-case thinking encourages society to adopt fear as one of the dominant principles around which the public, the government and institutions should organize their life. It institutionalizes insecurity and fosters a mood of confusion and powerlessness. Through popularizing the belief that worst cases are normal, it incites people to feel defenseless and vulnerable to a wide range of future threats." Even worse, it plays directly into the hands of terrorists, creating a population that is easily terrorized -- even by failed terrorist attacks like the Christmas Day underwear bomber and the Times Square SUV bomber. When someone is proposing a change, the onus should be on them to justify it over the status quo. But worst case thinking is a way of looking at the world that exaggerates the rare and unusual and gives the rare much more credence than it deserves. It isn't really a principle; it's a cheap trick to justify what you already believe. It lets lazy or biased people make what seem to be cogent arguments without understanding the whole issue. And when people don't need to refute counterarguments, there's no point in listening to them.

#### 6] Psychology - the most qualified brain studies and the introduction of optogenetics demonstrates neural connections to maximize pleasure and minimize pain.

**Schaffer 17** MIT technology review, Amanda Schaffer is a freelance journalist who writes about science and medicine for Slate, the New York Times, and other publications. Neuroscientist Kay Tye tackles the physical basis of emotions and behavior. [“How the Brain Seeks Pleasure and Avoids Pain” MIT research lab <https://www.technologyreview.com/2017/06/27/150948/how-the-brain-seeks-pleasure-and-avoids-pain/> 6/27/17]//Mberhe

As a child, Kay Tye was immersed in a life of science. “I grew up in my mom’s lab,” she says. At the age of five or six, she earned 25 cents a box for “restocking” bulk-ordered pipette tips into boxes for sterilization as her mother, an acclaimed biochemist at Cornell University, probed the genetics of yeast. (Tye’s father is a theoretical physicist known for his work on cosmic inflation and superstring theory.) Today, Tye runs her own neuroscience lab at MIT. Under large black lights reminiscent of a fashion shoot, she and her team at the Picower Institute for Learning and Memory can observe how mice behave when particular brain circuits are turned on or off. Nearby, they can record the mice’s neural activity as the animals move toward a particular stimulus, like sugar water, or away, if they’re crossing a floor that delivers mild electric shocks. Elsewhere, they create brain slices to test in vitro, since these samples retain their physiological activity, even outside the body, for up to eight hours. Tye has been at the forefront of efforts to pinpoint the sources of anxiety and other emotions in the brain by analyzing how groups of neurons work together in circuits to process information. In particular, her work has contributed to a profound shift in researchers’ understanding of the amygdala, a brain area that has been thought of as central to fear responses: she has found that signaling in the amygdala can in fact reduce anxiety as well as increase it. To gain such insights, she has also made crucial advances in a technique, called optogenetics, that allows researchers to activate or suppress particular neural circuits in lab animals using light. Optogenetics was developed by Stanford neuroscientist and psychiatrist Karl ­Deisseroth, and it represented a breakthrough in efforts to determine the role of specific parts of the brain. While Tye was working in his laboratory as a postdoc, she demonstrated, for the first time, that it was possible to pinpoint and control specific groups of neurons that were sending signals to specific target neurons. This fine-grained approach is important because drugs that treat conditions like anxiety currently do not target specific circuits, let alone individual neurons; rather, they operate throughout the brain, which often leads to undesirable side effects. Tye’s research may eventually help open the door to drugs that affect only specific neural circuits, reducing anxiety with fewer side effects. Such work has earned formal accolades, including a Presidential Early Career Award for Scientists and Engineers from President Obama, a Freedman Prize for neuroscience, and a TR35 award, recognizing outstanding researchers under the age of 35. Tye has also won high praise from others in her field who admire the creative breadth of her ambition. “She’s not afraid to ask the most fundamental questions, the ones most other scientists shy away from,” says Sheena Josselyn of the University of Toronto and the Hospital for Sick Children Research Institute. The questions she takes on involve emotions and phenomena that loom large in human experience, such as reward-seeking, loneliness, and compulsive overeating. Her goal is to understand their neural basis—to bridge the gap between brain, as understood by neuroscientists, and the mind, as conceived more expansively by psychiatrists, psychologists, and other students of human behavior. Would-be novelist Though it might seem as if Tye was born to be a scientist, she says her choice of career was anything but inevitable. In high school, she was ambivalent about science and gravitated instead toward writing; she wrote plays, short stories, and poetry. “In my mind, I was going to be a novelist,” she recalls. Still, while applying to college, she included MIT on her list, partly to humor her parents, Bik-Kwoon Tye and Henry Tye, both of whom had earned PhDs there in 1974. And when she received an acceptance letter, her father found it hard to disguise his feelings as his eyes welled with tears. “I’d never in my life seen my dad cry,” she says. She decided that she ought to give scientific learning a more dedicated try. She also convinced herself (with parental encouragement) that focusing on the natural world would give her more to write about down the road. As a freshman at MIT, Tye joined the lab of Suzanne Corkin, who was working with H.M., one of the most famous patients in the history of neuroscience. H.M., whose name was revealed to be Henry Molaison upon his death in 2008, suffered from profound amnesia after a lobotomy to treat seizures; studying his condition allowed researchers to probe the neural underpinnings of memory. One of Tye’s roles in the group was to make H.M. a peanut butter and jelly sandwich for lunch. He would eat it and then, moments later, with crumbs still on his face, ask, “Did we have lunch yet?” “It made me appreciate that these basic functions, like memory, that are so key to who we are have biological substrates in the brain,” she says. Neuroscience can be intimidating and filled with jargon, she adds. But the experience with H.M., along with an inspiring introductory psychology class taught by Steven Pinker, “made it seem worth it to slog through the all-nighters” to understand the biological mechanisms behind psychological constructs. Still, after graduation, Tye wanted to make sure she was “looking around,” thinking about who she was and who she wanted to be. So she spent a year backpacking in Australia, where she worked on a farm, lived in a yoga ashram, taught yoga, camped out on the beach, and worked on a novel. She found that writing was “hard and lonely.” She enjoyed teaching yoga but didn’t see it as a satisfying career path. “I came out of that year surprisingly ready to go to grad school,” she says. Diving back into the academic world, she initially struggled to find a lab that would accept her and almost dropped out after her first year. But she found a mentor in Patricia Janak, who became her advisor, and earned a PhD in neuroscience at the University of California, San Francisco, in 2008. A surprise in the amygdala In 2009, Tye joined Deisseroth’s lab at Stanford. Deisseroth had already developed optogenetics, which gave researchers a much more precise way to identify the contributions of individual neurons within a circuit. Along with others in the lab, Tye used optogenetics to probe the connection between two parts of the amygdala, an almond-shaped region that is crucial to anxiety and fear. She first identified neurons in one area (known as the basolateral amygdala) that formed connections to neurons in another amygdalar area (known as the central nucleus) by sending out projections of nerve fibers. When she stimulated those basolateral amygdala neurons, she was able to reduce anxiety in mice. That is, she could cause the animals to spend more time in open spaces and less time cowering to the side. This was surprising, because when researchers stimulated the amygdala as a whole, the mice’s behavior grew more anxious. At first, everyone asked, “Are you sure you’re using the tool right? What’s going on?” she recalls. But after meticulous validation, in 2011, Tye and the group published their results in Nature, showing that some circuitry within the amygdala helps to calm animals down. This paper also represented a breakthrough in optogenetic technique. For the first time, researchers were able to zero in on and manipulate a specific part of a brain circuit: particular groups of neurons communicating with known target neurons. The technique, known as optogenetic projection-specific manipulation, is now considered one of the key tools of neuroscience. In 2012, Tye came to MIT as an assistant professor of brain and cognitive sciences at the Picower, continuing her work on anxiety. While setting up her lab, she targeted neurons within the amygdala that seemed to have the opposite effect on mouse anxiety, causing it to increase. These brain cells are also located in the basolateral amygdala, but they send projections to a nearby region known as the ventral hippocampus. When Tye stimulated this circuit using optogenetics, the mice avoided open spaces, apparently suffering from anxiety. (When she inhibited the connections from forming, the animals hung out in the open again, their anxiety seemingly alleviated.) Tye proposed that neighboring neurons in the amygdala can have opposite effects on animals’ behavior, depending on the targets to which they send signals. Threats and rewards At the time, most researchers studying the amygdala still tended to focus mainly on its role in fear. Yet Tye suspected that activity in this part of the brain might encode a stimulus as either rewarding or threatening, good or bad, helping individuals decide how to respond. “There are many stimuli we encounter in our daily lives that are ambiguous,” says Conor ­Liston of the Brain and Mind Research Institute at Weill Cornell. “A social interaction, for example, can be either threatening or rewarding, and we need brain circuits devoted to differentiating which is which.” By looking at the relative strength of the currents passing through two glutamate receptors known to indicate synaptic strength, Tye discovered that different neural connections in mice were reinforced depending on whether a particular stimulus was linked to a reward or a threat. When mice learned to associate a sound with a treat of sugar, she found stronger synaptic input to the neurons in the basolateral amygdala that were sending information to the nucleus accumbens, which is part of the brain’s reward circuitry. On the other hand, when mice learned to associate the sound with mild electric shocks to their feet, input signals grew stronger in circuits leading from the basolateral amygdala to the centromedial amygdala, which is involved in pain and fear. In addition, she demonstrated a trade-off: when one of these circuits grew more active, the other grew less so. In other words, she had found how the brain encodes information that allows mice to differentiate between stimuli that are rewarding and those that are potentially harmful. The results were published in Nature in 2015. In recent work, Tye also probed the circuitry involved in making split-second decisions when both threatening and rewarding cues are present at the same time. She and her team focused this time on connections between the amygdala and the prefrontal cortex, an area responsible for higher-order thinking. (Specifically, they examined interactions between the basolateral amygdala and the prelimbic medial prefrontal cortex.) Using optogenetics and other techniques, they showed that this circuitry was active when the animals were simultaneously exposed to a potential sugar treat and a potential electric shock and had to make a decision about how to behave. Her results, which appeared in April in Nature Neuroscience, help illuminate how animals figure out what to do in the face of complex and sometimes contradictory cues.