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**Pharma patent monopolies drive hormone shortages and price hikes now--damages the physical and mental health of transgender folks**

**Fragnito 20** [Maddalena Fragnito, 2020, "Commoning Molecules: Decolonising Biological Patents By Gender Hacking Protocols," Journal of International Women’s studies, <https://hcommons.org/deposits/item/hc:32817/>, accessed 9-7-2021] BCortez RCT//SR

Basic Rights Shortage13 Since both the production pathways of extraction and hormone synthesis are patentable subjects, nowadays, pharmaceutical companies retain all power over hormone molecules. This route to patenting creates basic rights shortages making transgender people reliant on global drug markets that may exclude them from accessing the drugs they need. This is the case during summer 2019 when testosterone disappeared from Italian pharmacies. In one of their latest bulletins (January 2020), the Italian Drug Agency (AIFA) confirms the temporary unavailability of most hormonal drugs, such as Nebid (Bayer), Testoviron (Bayer) and Sustanol (Aspen). When the supply of a drug is restricted, a country may lose access if the limited supplies are diverted by parallel trade, a practice that takes advantage of the price differences between different markets. Under WTO public health regulations, in fact, if there is a public health emergency, countries can use parallel trade flexibilities to import drugs. The problem arises when the drug is in short supply. By making less supply than is needed globally, monopolies can drive up the price by selling the whole supply to the country offering the highest price. This phenomenon forces the latter to buy the product – under “Emergency Conditions” and at an increased cost. The phenomenon, which generates discontinuous hormones intake for transgender people who need it, occurs in Italy alongside most parts of the world (Smiley et al. 2017). A disrupted hormone intake causes higher risks of thrombosis and chronic osteoporosis – not to mention depression and suicide rate due to the impossibility of bodily self-determination.∂ Another aspect to take into account is that, because of the restrictions on importing, countries can only import the drug for essential and emergency treatments (Class A drugs, listed as life-saving) and not for those considered to be less urgent and essential, such as the sextransitioning medical pathway which is not among the authorised conditions for the use of any medicinal product. This invisibility produces as an effect the fact that hormones are difficult to catalogue in Class A (life-saving drugs). On the contrary, the present hormones’ classification (Class C), which is authorised for – non life-saving drugs for – cisgender14 people’s hormonal therapies, do not protect transgender people from the consequences that discontinuous hormone intake can generate. ∂ Moreover, another factor that further complicates this classificatory void is related to the lack of data. For instance, in Italy, under the current legislation, AIFA can consider the introduction of a new therapeutic indication for a drug only if the pharmaceutical company that holds the marketing authorisation (in Italy, AIC) submits a request for an extension of therapeutic indications supported by related scientific evidence. However, there are no systematically collected datasets because gender transition does not follow a specific medical procedure: a perfect vicious circle. As a consequence, medical research and access to medication and care are affected, as well as increased risk to transgender people during emergencies. In summary, what emerges from this phenomenon is that the so-called “gender dysphoria”15 is considered to not require an essential treatment. Thus, in the context of hormone patent monopolies, the institutional classification of what is essential and what is an emergency – and to whom – threatens to put the needs of transgender people for hormone treatment into an invisible place. Thus, two issues have arisen so far. On the one hand, the question of consent around the contradiction of being all exposed – although at different levels – to hormonal pollution, while at the same time encountering serious difficulties when desiring sex hormonal therapy. On the other hand, the question of how this same contradiction, and its related problems, entwines with the strict regulative system of hormones’ patents. This is the main context in which DIWO biohacking workshops dealing with hormone knowledge, awareness, production are rising and, by proposing a more inclusive definition on what is essential and to whom, are spreading.

**Systems of power manipulate intellectual property to best exploit the vulnerable body – they determine which drugs are “acceptable” for public use and create the perception that gender dysphoric folk are “mentally ill”**

**Preciado 2013** |Paul B. Preciado is a professor of Political History of the Body, Gender Theory, and History of Performance at Université Paris VIII and director of the Independent Studies Program (PEI) of the Museum of Contemporary Art of Barcelona (MACBA). *Testo Junkie: Sex, Drugs, and Biopolitics in the Pharmacopornographic Era*, 2013, Page 389-393|KZaidi

In fact, the pharmacopornographic industries are already in competition with the domestic affairs of the old nation-states . . . The war to come isn’t a war between states (Israel vs. Palestine or the United States vs. the oil-produc- ing countries) but more probably a war of pharmacopornographic multinationals against the multitude of vulnerable bodies, a war of the pharmaceutical multinationals that hold the copyright for active principles against the traditional gatherers of plants and their specific forms of knowl- edge, a war of the military-prison-industrial complexes against the racialized and pauperized populations, a war of mafia states against the users of “illegal” drugs, a war of the multinational conglomerates that coordinate the man- agement of medical and legal institutions and free market consumption against bodies deprived of nationality, a war of the systems of control that construct docile sexual sub- jects to achieve the total and limitless exploitation of their potentia gaudendi. The history of the transformations of production, distribution, and consumption of heroin offers several leads about the probable evolution of the legal and political management of sex hormones. Although their common origins don’t seem obvious, heroin and aspirin were synthesized in the same year, 1897, and in the same laboratory, by Hoff- man and Eichengrun, by means of the same process. It involved the simple acetylation of morphine (in the case of heroin) and salicylic acid (in the case of aspirin). Heroin and aspirin were legally marketed by Bayer the following year for the treatment of various pulmonary affections, because of their analgesic properties. Although restrictions on the production and distribution of heroin went into force in the 1920s, it was still possible to find heroin-based pills in an English pharmacological catalog in 1949.59 After fifty years of the repression and criminalization of the marketing of heroin, which resulted in the deterioration of fields, which weren’t being tilled, the adulteration of the substance, and the corruption of its trafficking networks, medical special- ists today are developing a gradual reintegration of heroin into the legal pharmaceutical market. For example, Macfarlan Smith Limited in Edinburgh is making yearly advances in the experimental and therapeutic use of this substance.60 The changes in the legal status of a substance and the description of a consumer as criminal or mentally ill (addicted in the case of heroin, and gender dysphoric in the case of sex hormones) facilitate the establishment of a political relationship between illegal drugs and biocodes of the production of gender. Sex hormones, whose consump- tion is strongly regulated by the state, are drugs whose use is, if not illegal, at least politically controlled; and their use, considering their potential for transforming gender and sex, is subject to specific restrictions that espouse administrative criteria and channels of distribution comparable to those of narcotic substances.

**This is exacerbated during the covid pandemic--it forces unreliable drugs in the grey market, worsens income inequality, and alternatives have failed**

Canela **López**, 4-17-**2020**, "People are sharing hormones on Google Docs and turning to 'grey market' pharmacies to get gender-affirming care during the pandemic," Insider, <https://www.insider.com/transgender-people-turn-to-grey-market-for-hormones-during-pandemic-2020-4> //SR

The coronavirus has spurred the creation of hormone-sharing lists Since the lockdowns came into effect across the US, mutual-aid networks for queer and transgender people have popped up, including grocery delivery and resources for people with lost incomes. Among them are efforts geared toward redistributing hormones and needles to those in need, including hormone-sharing Google Docs, and grey-market pharmacies, which buy and sell unregulated hormones. The Google Docs are particularly useful for finding testosterone solution, which is tightly regulated and expensive, and clean needles, which aren't so easy to buy, and can be pricey too. Testosterone can cost between $40 and $90 for a two-month supply (a 10 ml bottle of 200 mg/ml solution) without insurance. The expenses quickly add up when you consider the costs of gender-affirming clothing like binders (upwards of $35), prosthetics (hundreds of dollars), and syringes to administer the testosterone, which can cost between $15 and $20 for a 100-count box depending on the supplier. Free needle exchanges exist, but the pandemic has caused many to shutter. If people opt for AndroGel, the topical form of testosterone, a month's supply can cost between $30 and $80 without insurance. hormone tableInsider / Olivia Reaney People further along in their transition may not need to take hormones as regularly, so some are sharing their excess Syd, a 23-year-old living in Berkeley, California, was browsing through lists of queer coronavirus mutual-aid pages when they stumbled upon an anonymous two-page Google spreadsheet titled "HORMONE SHARE." One page of the sheet is for people to list the specific hormones or equipment they need; the other is for people to list items they have to share. Syd felt compelled to put their information on the list because they had an excess supply of "T" (testosterone) to share. Syd, who uses they/them pronouns, has gotten to a point in their transition where they don't take testosterone as regularly as they did when they started on HRT a few years ago. Their body has gone through the physical changes they wanted. Rather than taking their prescribed .5 mL every week, Syd takes .5mL about every two weeks to maintain the physical changes. "I don't really need it that much, and someone else can use this. I can't get the intended effect that I want from hormones, and I also just really hate injections," Syd told Insider. "For the time being I assume I'm still going to be able to get in touch with my doctor, so it won't be an issue for me." A few days after posting on the spreadsheet, Syd got an email from an unfamiliar address. The sender said he'd seen their listing and was in need of testosterone because his usual HRT clinic in Philadelphia was not responding to phone calls. The sender was scared that he'd start to see side effects from being off HRT too long, like the return of his period. Breaking a nervous sweat while walking to the post office, Syd wondered about the legal consequences of shipping hormones across the country, and what they would say if post office workers asked about the contents of their padded envelope. Most testosterone medications are classified as steroids under the Controlled Substances Act and the Anabolic Steroid Control Act of 1990, so they are illegal to sell over the counter. But handing out hormones for free, though not recommended by doctors, doesn't break any laws. It is not illegal to share needles if there is no reason to believe that they would be used to inject illicit drugs. According to Harper Jean Tobin, Director of Policy for the National Center for Transgender Equality, while people should not take medications that aren't prescribed to them, hormone exchanges and grey-market pharmacies aren't new. "We strongly recommend that people should only take medications prescribed by their doctor, at the dosages prescribed," Tobin told Insider. "But like anyone else with regular prescriptions, it's not unheard of for roommates, friends, or partners on the same medication to trade a few doses until they can get to the pharmacy again." Syd felt compelled to share their hormones because of the deep impact dysphoria can have on the mental health of transgender and nonbinary people. Studies have linked dysphoria to depression and anxiety and significantly increased risks of substance abuse and suicide. "A lot of people who don't have dysphoria may not see it as essential, but I know that, for some people, it really makes them feel a lot more OK existing in their body," Syd said. "For some people it really is necessary to be taking it all the time. If they miss it, it can mean certain things can start to come back like menstruation, or facial hair growth, fat redistribution." Some have turned to grey-market pharmacies where people can buy hormones Estradiol and spironolactone, HRT medications typically used by transgender and nonbinary people assigned male at birth, can legally be sold online. While they can be found on list-shares, people also can buy them online via a network of grey-market pharmacies, shipping medication that is not illegal to sell, but medical professionals would not recommend taking it without a doctor's approval. That's what Callie, a 24-year-old in the United Kingdom, uses to get progesterone — a hormone that can stimulate breast development and decrease testosterone production in people assigned male at birth. Callie has always used a mixture of official and unofficial sources to access her hormones because of the legal grey area some of her medications exist in. "I take finasteride and estradiol, both of which are prescribed by a UK doctor with GenderGP, a private trans healthcare service," Callie told Insider. "However, I also take progesterone, which I obtain from the grey market because it cannot be prescribed in the UK but has been very beneficial to me." These markets carry clear risks — it's not as clear where your medication has come from — but they are generally more reliable and cheaper than official channels. There's also a tight-knit community of people on Twitter and subreddit /r/TransDIY who discuss the safest ways to get DIY HRT, and which online pharmacies have worked for them. A 5 ml bottle of depo-estradiol, an injectable hormone, costs upwards of $120 for a two-month supply. There is a generic version, estradiol cypionate, which costs between $40 and $100 for the same amount, but it needs to be taken more often, so runs out quicker, and there are often shortages. Soon, Callie may have to turn fully to grey-market sources because she has been unable to get an appointment with her doctor for another hormone prescription. "I'm running out very soon and so far my doctor hasn't responded to communication, so potentially very soon I might be turning to unofficial channels," Callie said. These unofficial channels have existed for years to help trans and nonbinary people get around red tape The pandemic has made hormone and needle sharing more visible, but it isn't new. Access to gender-affirming care — whether it's surgery or access to medication — has never been an easy proposition for transgender and nonbinary people. Medical insurance companies refused to cover gender-affirming care for decades and many primary-care physicians were unwilling to provide HRT, a medication also prescribed for menopause, to transgender and nonbinary patients because medical guidelines had not changed to include them. Until 2017, "gender identity disorder" was categorized as a mental disorder in the American Psychiatric Association's Diagnostic and Statistical Manual of Mental Disorders. And it wasn't until 2018 that the World Health Organization removed "transsexualism" the International Classification of Diseases — a move that, the WHO conceded, would allow for better "access to necessary health interventions." Still, access to gender-affirming care like HRT through official channels like a primary-care provider is fairly new, and therefore challenging. The pandemic has brought in even more obstacles. The pandemic may force more people to rely on hormone trading and grey markets Job losses, delayed paychecks, and loss of health insurance have stripped many transgender and nonbinary people of their access to HRT, or their means to pay the full cost or the co-pay, which can range from $10 to $85 a month, on average. Evelyn, the 21-year-old from Boston, still has access to hormones through her insurance, but she's still concerned about how she will continue to afford the co-pay for her HRT prescriptions without income. Like many Americans, she lost her job because of the economic downturn caused by the pandemic. "The big financial problem is I don't have income anymore and I'm sure a lot of people don't have income anymore," Evelyn said. "Even if costs don't change, I'm working with less and less total funds as time goes on."

**Thus, the plan: The member nations of the World Trade Organization ought to abolish patents for sex-hormonal agents. Cx and before round checks all interps to deter friv theory and maximize substance**

**The plan solves – patent abolition breaks down hormone monopolies and expands access. The result is a commoning of science, spreading of DIWO biohacking workshops, and strengthening public health.**

**Fragnito 20** [Maddalena Fragnito, 2020, "Commoning Molecules: Decolonising Biological Patents By Gender Hacking Protocols," Journal of International Women’s studies, <https://hcommons.org/deposits/item/hc:32817/>, accessed 9-7-2021] BCortez RCT//SR

Parallel trade markets affect transgender people's access to medication and care as a direct consequence of a monopoly-based system. To strengthen this monopoly, there is the fact that every new drug, when patented, cannot be manufactured or sold by others for at least 20 years. Without competition, pharmaceutical companies can decide the price they want by claiming that the high costs are caused by research and development costs. However, as there is no transparency about how these companies invest their capital (or benefit from the appropriation of public research), no one can verify the plausibility of these claims. Although several civil society groups, projects and organisations such as “Fix the Patent Laws”16, “Fair Pricing of Medicines”17, “Treatment Action Campaign”18 and “Knowledge Ecology International”19, have been working for years on accessibility to medical treatments, governments have not done much to defend themselves against pharmaceutical monopolies, or to strengthen the discourse in favour of greater access to care. That said, sticking to the current system will never bring universal access to drugs: some will always be able gain access while others cannot. This is what “Open Source Pharma”20, a mixed community who seeks new ways to discover drugs, states when promoting to: “create a movement that includes existing initiatives and develop an alternative, comprehensive, opensource pharmaceutical system driven by principles of openness, patient needs, and affordability”. In the context of sex hormone therapies, to abolish patents would help to alleviate hormonal shortage and its effects on the transgender community. Also, it would allow companies’ patent monopolies to be bypassed by engaging in more crucial research on the synthesis of hormonesfor-transition. Thus, the abolition of all hormone patents would mean to invest in practices of commoning science, involving the spread of DIWO biohacking workshops such as those described above, and strengthening their relationship with the public healthcare systems. Overall, these are the main reasons why DIWO biohacking workshops, by self-producing and administering hormones, align to the “open-source pharmaceutical system” promoted by the Open Source Pharma network – besides trying to regulate and modify the margins of a monopoly-based system throughout the many connections with existing social movements for access to healthcare. Unfortunately, the traditional arguments in favour of patents are deeply diffused and well described by Jones’s quote, which comes from its “Introduction to Economic Growth” (2002). Economic growth is linked to the establishment of a relatively secure system of intellectual property rights. However, over the last twenty years, the notion of a direct link between intellectual property protection and rates of innovation has been increasingly questioned (HilairePérez et al. 2013). Scepticism towards patents among economists was instigated by some of the early empirical studies on the effectiveness of patent protection. For instance, some studies by Mansfield (1986) and Levin et al. (1987) have highlighted that, in most industries, patents were not perceived as useful tools for protecting innovations. Consequently, firms typically worked with appropriability strategies that did not contemplate any resort to patent protection. This finding has been corroborated by later research both in the US (Cohen et al. 2000) and Europe (Arundel and Kabla 1998). Another fascinating quantitative snapshot is provided by Moser (2005), who surveyed inventive activity undertaken outside the patent system in the mid-nineteenth century. Furthermore, empirical studies have also shown the possible negative impact of patents on subsequent technological developments. For instance, when technological change is cumulative, that is, when innovations are directly linked to previous ones, durable patent protection can have highly harmful effects on the rate of innovation (Lerner 2009). Following this stream of research, some recent economists of innovation have attempted new theoretical appraisals of the welfare costs and benefits of patent protection. So far, one of the most influential contributions in this vein is probably that of Boldrin and Levine (2008) who, on the strength of their analysis, argue for the abolition of all patent systems. In synthesis, the abolition of the patent systems could allow sex hormone therapies to gain sovereignty instead of upholding a monopoly-based system which pretends to do so being the patron and shaper of our needs and desires; to promote a cultural and scientific more-inclusive-reflection of what is essential treatment and for whom and, consequently; to widen access to transgender healthcare.

**The practice commoning of science is key – it subverts traditional healthcare and allows for autonomous modes of communal care**

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As opposed to closed science, where communicative dynamics are limited by institutional walls or restricted by patents, copyright and paywalls, open science has been defined as a way to produce scientific knowledge by sharing its results and removing obstacles to circulation. However, the relation between closed and open science is the result of complex historical dynamics, none of which are external to the political and economic needs of their times. From medieval knowledge to modern molecular patents, phases of closedness and openness followed by characterising science history as a modes/ regimes of knowledge production based on different ways to finance, valorise and appropriate common pieces of knowledge. Silvia Federici argues that violence against women from the beginning of capitalism till now can be understood as a war, waged through privatisation and knowledge enclosures, against the capacity of keeping communities together and defending non-commercial conceptions of healthcare, wealth and commons (2018). Furthermore, as Valeria Graziano suggests in “Rebelling with Care”, the ability of healthcare social justice movements to autonomously organise their knowledge and practices on care and assistance systems (even before the digital turn) has to be intended as a struggle that “have often led them to clash with managerial classes in state bureaucracies and private corporations” (Bria et al. 2019:38). From the 1940s to the 1970, governments became the major funders of public scientific research in exchange for both collective and national purposes and a contribution to the advancement of military technologies. In 1980, the US “Bayh–Dole Act” was approved (followed by similar laws in other countries) representing a fundamental change that opened the way for the new rhetoric of innovation to transfer public science discoveries to private corporations for the latter's profit (Delfanti 2013). Within this rapidly transformed context, research, even that carried out in public universities, became proprietary and functional to industries and governments (Ziman 2002). Today’s forms of participating in science are many and different: from online forums to crowd-funding platforms; from Wikipedia and collective books to common data-gathering platforms. However, the possibilities offered by these digital tools are not always related to effective democratisation of scientific knowledge production. Indeed, the Web 2.0’s purposes to restore a democratic and creative commoning of knowledge and its benefits, and to get it out from behind paywalls, contend with the reality that most technologies and platforms in use are exactly the point of contention between for profit and participatory processes. For instance, there is an abundance of platforms held by private companies, which are promoting the commoning of biomedical data to be sold just afterwards (i.e. 23andWe). Thus, we navigate an area where issues related to privacy, redistribution, and exploitable free labour are evident (Terranova 2004). Consequently, this mode of popular scientific knowledge production via digital platforms is not the alternative to the market it portrays itself as, but an integral part of it, which guarantees mediatized exposure and capital accumulation (Rajan 2006), and free-market competition (Hope 2008). In Marxian words, we are not divorced from the means of production, which are indeed more and more widespread and pervasive, yet, the fruit of our cooperation is routinely expropriated by companies through increasing management, data capture and knowledge control. Moreover, digital platforms, while revealing the extent to which social cooperation (and reproduction) is at the core of capital accumulation and economic control, are also proving that fluids and cells are the matter through which capital is fed. At the same time, digital tools have also transformed how we cooperate and reproduce ourselves and our communities within monopolistic property regimes, time management, normalisation of social relationships, and subjectivation processes coinciding with data profiling systems. Therefore, it is crucial to try answering at least two questions. The first is about what happens when digital tools are not sustained by commercial interests, meaning they can create more autonomous and common environments, through an infrastructural design that stimulates the redistribution of shareable knowledge as the wealth produced through cooperation. The second question, instead, would be about our possibility to strike against the machine, a “strike because we care” (Women’s Strike Assembly 2020) to better understand the specificity of how the reproduction of life and social relations, through digital technologies, impacts on ourselves. In synthesis, the question is whether a disruptive intervention in the procedures and protocols in which we are involved can allow us to critically re/appraise the relationship between knowledge, power and institutions – together with an understanding of new uses of the machine as a process for strengthening social bonds and self-determination. It follows that commoning science implies the redesign of technologies as well as the embodiment of collective scientific practices, which resist the coloniality of commercial patents and knowledge monopolisation and give back centrality to self-education and “praxis of care and response” (Haraway 2016) within communities that are already in place, enabling their capabilities to resist the push to reduce knowledge to what can be bought or sold. Commoning science (and molecules), therefore, is not just thinking of scientific knowledge and data as a common good that needs to be shared freely through the hacking or re/design of technological tools. It is also the use of participatory methods able to strengthen mutual healthcare practices within autonomous communities of care. Since there are no fully autonomous infrastructures because they depend, for instance, on already existing mainstream companies’ communication networks and technologies, the selected practices attempt to conceive more autonomous communities, and, from here, the conditions for the creation of more autonomous infrastructures based on collective values, governance and principles, instead of individual profit. This attempt is conceived not only through the design of open-source protocols and tools but also by the use of participatory workshop methods, which are fostering time together and are giving back centrality to collective practices of healthcare self-education.

**That’s necessary to envision body liberation and different modes of living**

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These participatory workshops draw on a network of relationships made under the expectation that we will each take care of one another and demonstrate a shift in thinking from the ethic of “I am on my own” to “we are in this together”. In fact, if institutions and exclusive patents produce “biopolitical fictions” (Preciado 2013) determining how bodies should be divided by gender and on how they should reproduce, heal and die; these practices of inclusion and care confront the becoming molecular mutants as a form of bodily liberation. Moreover, by resisting the dominant paradigm of modern life, which insists that what is bought and sold in the market is the only way to provide meaning and sustenance in our lives, commoning hormone molecules is a way to draw on our imagination by bringing out different ways of living. Following Hil Malatino’s words, “while trans bodies are routinely theorized as a prompt for cis folks to reconsider the ‘nature of nature’ (Barad 2015, 392) and, by extension, the nature of embodiment, we have not thought very much, or very carefully, about whether and what form of an ethics might spring from such a reconsideration” (2020).

**This form of copyleft gender hacking is not an affirmation of the state, but rather a demand and awakening for communities of care to create resistance**

**Preciado 13** |Paul B. Preciado is a professor of Political History of the Body, Gender Theory, and History of Performance at Université Paris VIII and director of the Independent Studies Program (PEI) of the Museum of Contemporary Art of Barcelona (MACBA). *Testo Junkie: Sex, Drugs, and Biopolitics in the Pharmacopornographic Era*, 2013, Page 393-394|KZaidi

How to react in the face of states’ resistance to legal- izing the sale of pharmaceutical heroin or removing the consumption of sex hormones from psychiatric protocols? If we consider the close relationships maintained by the neoliberal nation-states, the pharmaceutical corporations, and the networks of drug trafficking, it appears urgent that those dismissed as junkies (the users of illegal drugs) and those diagnosed with gender dysphoria (the potential users of sex hormones) must organize into associations of copyleft drug consumers and force the state-industry- pharmaceutical-drug-trafficking networks to facilitate free access without restrictions to these biocodes of the produc- tion of subjectivity. Just as the users of Agreal prosecuted Sanofi-Aventis laboratories for the serious side effects61 of this medication (originally intended to disguise the symp- toms of menopause by blocking the action of the dopamine neurotransmitters), the users of heroin could prosecute the state in instances of withdrawal or overdose for that state’s having prevented the production, distribution, and consumption of that substance for users in a trustworthy and legal manner. This political pressure would lead gradually to the production and distribution of heroin (or cocaine, MDA, etc.) as generics that could be first bought freely on the pharmaceutical market and, in the long run, be produced and managed collectively as chemical prostheses commons. This would ultimately entail a process of a mul- titude-in-the-making, not only of a lobby of consumers of gender and sex biocodes but also a network of trans-junkie experts, a monster-multitude-in-the-making.

**Our framework is to prioritize trans-dignity. Cisnormative values have been normalized in educative spheres and lead to the continuous ignorance and underestimation of antiqueer violence. De-prioritizing this framework is violently unethical and denies value to life.**

**Francois ’17 et al**; Aderson B. Francois currently serves as the Director for Institute for Public Representation Civil Rights Law Clinic as well as a Professor of Law at The Georgetown Law School. Prior to joining the Georgetown faculty, Professor Francois directed the Civil Rights Clinic at Howard University School of Law, where he also taught Constitutional Law, Federal Civil Rights, and Supreme Court Jurisprudence. Professor Francois received his J.D. and B.A. from New York University. While the author serves as the Counsel of Record for this Amicus Brief. it is important to note that this Amicus Brief is submitted on behalf of REAGAN GREENBERG, ACHIM HOWARD, ALEXA RODRIGUEZ, JEYMEE SEMITI, AVATARA SMITH-CARRINGTON, SAVANNA WANZER, & SAM WILLIAMSON – who, identity as transgender people and individuals whose gender identity may not fit the rigid categorization of male or female. Amicus Brief - Gloucester County School Board, Petitioner, v. G.G., by his next friend and mother, Deirdre Grimm, Respondent. On Writ of Certiorari to the United States Court of Appeals for the Fourth Circuit - BRIEF OF AMICI CURIAE REAGAN GREENBERG, ACHIM HOWARD, ALEXA RODRIGUEZ, JEYMEE SEMITI, AVATARA SMITH-CARRINGTON, SAVANNA WANZER, & SAM WILLIAMSON IN SUPPORT OF RESPONDENT - Available at SCOUTS blog – along with all amicus briefs on this matter- March – modified for language that may offend – - #CutWithKirby - <http://www.scotusblog.com/wp-content/uploads/2017/03/16-273-resp-amicus-greenberg.pdf> Bracketed for ableist language RCT//SR

Human dignity is at the core of this case. While this is not a constitutional case, the Court's reliance on human dignity bears repeating as its decision here so obviously implicates it. Transgender people are people and are deserving of treatment that upholds basic values of human dignity. For transgender people, a right to human dignity is the right to be accepted for who they are, to be valued, respected, and ethically treated, irrespective of their gender identity. For transgender people of all ages, recognizing that their gender does not match the gender they were assigned at birth is an enormous burden to carry when the institutions they navigate refuse to affirm their true identity. The ability to self-determine what gender best aligns with their identity, and then be acknowledged as such, is at the crux of bodily integrity. The reality of transgender people's lives is a daily reminder that virtually everything in the world is organized in a way that tells them that their identity is not normal. I often tell people that my body has been inextricably linked to violence since birth. On its face, this statement appears to be overdramatic. People begin to dissect and regurgitate a list of my privileges in attempts to ease their guilt, while simultaneously stripping me of my voice. You see, the violence I speak of is not that which we have been socialized to naturally fear but instead one that is systemically normalized. This is the type of violence that is often disregarded and negated because conversations around privilege and oppression are uncomfortable and for many, irrelevant. Avatara Smith-Carrington, Black, Age 24, Baltimore, MD Upon birth, an infant is designated a gender of either male or female.26 The infant then spends their youth adhering to socially constructed guidelines on how to present themselves as male or female.27 Their forms of identification—birth certificate, driver s license, passport, etc.—reflect the gender assigned at birth. In public forums, they face gender-segregated choices, such as joining a male or female soccer league, or becoming a boy scout or a girl scout, and those decisions are pressured by what is written on a piece of paper handed to thein at birth. This standardized, presumptive process is a much more oppressive system to navigate for those whose gender identity does not align with the gender assigned at birth. Transgender people face a complicated reality in great part because, from time immemorial, clinicians and academics have made transgender individuals the "objects of their inquiry,"28 using language that at times implicitly but far more often explicitly burdens transgender people with the mark of being "abnormal." Transgender people live in a society where "people must be willing to be pathologized" in order to have their gender identity socially and legally affirmed.29 Society today deems transgender people's gender identities, expressions, and sex "less natural and less legitimate" than those of non-transgender people.30 Transgender people are expected to carry not only medical prognosis, but also a physical appearance that passes as "male" or "female" in the eyes of non-transgender people. Even among well-meaning people, non-transgender attributes are "simply taken for granted" and "assumed to be natural or normal."31 Although the assessment of a person's gender, for the majority of people, tends to be in agreement with that person's gender identity, this is not the lived experience of transgender people. Most non-transgender people "remain oblivious to the subjective nature of gendering, primarily because they themselves have not regularly had the experience of being misgendered."32 One need look no further than the amici curiae briefs filed after the Petitioner filed its brief, such as the one by Safe Spaces for Women, to see evidence of a world in which the only "normal" perspective is that of non-transgender individuals. When calling specific attention to violence against women by men, counsel for Safe Spaces for Women did not include transgender women in their efforts to "ensur[e] that the voices of women who have suffered sexual abuse are heeded when policies are made that may directly affect their physical, emotional, and psychological well-being."33 This is a silencing of transgender identities and voices. Because of the assumptions created by our non-transgender frameworks, non-transgender individuals draw the conclusion that everyone they meet is also non-transgender.34 The mentality of assuming everyone you meet is non-transgender trickles into every aspect of life, from casual interactions with people on the street, to how coworkers address each other in the workplace. As such the majority of people are blind [ignorant of] to the struggles of transgender people, and the legitimacy of the struggle transgender people living in the United States face is obfuscated by that [ignorance] blindness. When people come out as transgender, many healthcare providers,35 employers, and educational institutions perpetuate violence against them by refusing to affirm their gender identity. When this lack of affirmation takes the form of exclusion— cutting off transgender individuals from work, health services, classes, or other essential structures—there can be no question that such exclusion is an act of violence. Even when transgender people are able to access non-affirming institutions, they are left with two options: (1) perform an identity that is not their own, which strips them of human dignity; or (2) defy the institution and face punishment, which is quite literally violent. Forcing a transgender individual into performing their gender assigned at birth forces that individual to live in a skin that is not their own. The inability of a transgender person to be acknowledged as the gender identity they align with forces individuals to live in violence.

**Academic spaces uniquely require agency and communities of care--biopolitical systems have erased lower class knowledge and biased our views, which makes epistemologies a prior question to evaluate**

**Hester 18.** Helen Hester (Helen Hester (United Kingdom, 1983) is associate professor of media and communication at the University of West London. Her lines of research include digital technologies, reproductive policies and the future of work), 2018, “Xenofeminism,” I have a pdf, sean!

The American second-wave self-help movement explicitly framed its activities as a means of restoring bodily autonomy to people who felt disenfranchised by their interactions with the medical establishment, and who were excluded from active decision making regarding their own care. As Ehrenreich and English put it, ‘When we demand control over our own bodies, we are making that demand above all to the medical system. It is the keeper of the keys.’12 The relationship between the providers and recipients of professionalized medical care in the 1970s was both highly gendered and deeply unequal, with service users ‘dependent on the medical system for the most basic control over their own reproductivity’.13 This was in the face of the threat of involuntary tubal ligations, unnecessary hysterectomies, and under-tested or unethically tested contraceptives. Initially developing out of the consciousnessraising activities of the second wave, ‘feminist self-help involved women meeting in small groups, sharing information and stories, educating themselves about their bodies and the medical establishment, and looking for remedies to minor bodily problems’.14 Its focus was on developing lay knowledge not only as a means to assert immediate agency over one’s own body – to more fully understand its workings – but also as part of a shareable process of self-enfranchisement and a first step in agitating for more patient-focused practices of care. Arguably, however, it is the movement’s attempts to wrest control away from the medical establishment for which it is most famous. This DIY approach spawned initiatives such as the seminal women’s heath book Our Bodies, Ourselves (OBOS) – first published in 1971 as the proceedings of a small self-help workshop that later became the Boston Women’s Health Book Collective. The collective faced many barriers to finding information about gynaecology and the reproductive body; it was often difficult for lay people to even get into medical libraries, and the writing process ‘involved the clandestine borrowing of library cards from bona fide medical students’.15 Much of the material included in the original edition of OBOS was the result of painstaking individual research in the face of scant information and resources – the sidestepping of medical gatekeepers and university librarians alike! Given the difficulties in obtaining even the most basic information about human health, the barriers in providing and accessing care beyond the professionalized medical establishment were remarkable. This was particularly the case when it came to procedures widely restricted by legislation. It was radical enough to include a chapter on abortion in OBOS (considering its publication two years before Roe v. Wade), but the need to widen actual access to abortion in the early seventies was particularly pressing. The feminist response to this was to set up abortion counselling and referral services, such as Jane in Chicago. Originally established as one of a number of networks in the US intended to connect people with so-called ‘backstreet abortionists’, the group’s activities later took a quite distinctive turn: At first the women in Jane concentrated on screening abortionists, attempting to determine which ones were competent and reliable. But they quickly realized that as long as women were dependent on illegal practitioners, they would be virtually helpless. Jane determined to take control of the abortion process so that women who turned to Jane could have control as well. Eventually, the group found a doctor who was willing to work closely with them. When they discovered that he was not, as he claimed to be, a physician, the women in Jane took a bold step: ‘If he can do it, then we can do it, too.’ Soon Jane members learned from him the technical skills necessary to perform abortions.16 Through witnessing and assisting with the performance of abortions beyond a professionalized clinical environment, members of Jane developed a new understanding of and attitude towards the procedure: ‘The techniques were very straightforward. [. . .] They were skills that, with practice and care’, any lay person could learn.17 With abortion thus demythologized, members of the service came to the conclusion that ‘the barriers that the medical establishment erected between patient and practitioner were not a function of either a woman’s needs or the needs of the situation’.18 Instead, they were a function of disciplinary power and a means of hoarding both institutional authority and useful knowledge. The group set itself a mission to further feminist reproductive sovereignty by making service users active participants in their own care – a process intended to denaturalize the condescending treatment that many received at the hands of doctors. Initially and primarily, Jane relied upon dilation and curettage abortions – a procedure in which the cervix is opened and the contents of the uterus are scraped out. Later, however, some members switched to a manual aspiration model using cannulas and syringes, which they learned about via the inventors of the Del-Em. Whilst Jane used methods related to menstrual extraction, rather than deploying the Del-Em itself, the accounts of those involved with the service remain useful to us for their critical engagement with medical instruments. Laura Kaplan organizes much of her history of Jane around the necessity of gaining ‘access to the tools and skills to affect the conditions’ of technomaterial existence – that is, she frames the circumnavigation of gatekeepers as a process of seizing technologies.19 Again, we see that the development and appropriation of technology was a crucial part of the feminist movement’s efforts to challenge medical sexism and profiteering. The Del-Em itself, as a technology designed by feminists to route around the juridical and medical restrictions upon access to abortion, demands to be seen in just these terms. In this case, there is another level to the general tendency towards free information exchange and the bypassing of gatekeepers. The Del-Em arguably represents an engagement with the principles of free and open source design as a means of ensuring the equitable dissemination of tools and technologies. Whilst the device was patented by its original designer (Lorraine Rothman), it was always intended to circulate in a free and non-commoditized fashion. The formal turn to intellectual property was not about securing individualized ownership of menstrual extraction and its instruments, but was in fact a concerted attempt to ensure that the Del-Em would remain freely available, protected, and shareable amongst those who might need it. This is important when contextualizing the emergence of the device, which was designed in California during the 1970s – a time and space associated with considerable innovation in software development. The emphasis on shareability associated with self-help in general, and with menstrual extraction in particular, can be thought of as ‘analogous to modes of shared and circulated production that gave birth to software such as UNIX, and later LINUX, as well as the open-source patent’20 – developments which some contemporary commentators see as suggestive of the rise of a new economy of contribution, grounded upon participatory knowledge exchange. An emerging interest in free and open source design and dissemination was characteristic of the Del-Em’s historical moment. In its commitment to non-market mechanisms, and its focus on information sharing and voluntary cooperation, the feminist self-help movement arguably demonstrates an ethos akin to that of what we now call the Creative Commons; this was one key prong of feminist efforts to work around oppressive pathways of healthcare. The xenofeminist manifesto touches upon the link between medical technologies and free and open source platforms in a different context – namely, healthcare for trans\* people in the twenty-first century. Paul B. Preciado is amongst those who have discussed the bypassing of gatekeepers within trans\* communities. His ground-breaking book Testo Junkie: Sex, Drugs, and Biopolitics in the Pharmacopornographic Era describes his self-experimentation with Testogel – a synthetic androgen administered through the skin. As he remarks, whilst some people choose to use the drug ‘as part of a protocol to change sex’, others are ‘self-medicating without trying to change their gender legally or going through any psychiatric follow-up’.21 Preciado positions himself within this latter camp, taking testosterone outside of the narrowly defined territories of its institutionally sanctioned usage. He is not taking it with the permission of doctors in order to transition from ‘female’ to ‘male’; he is illicitly self-administering it, appropriating and repurposing specific molecules in an act of autoexperimentation without preconceived goals or ideal outcomes. The decision to not seek an official diagnosis is in part a refusal to submit to the policing gaze of medical and juridical authorities. As Joshua Rivas observes in his engagement with Testo Junkie: Before a transgender individual can generally be prescribed a course of hormone replacement therapy (and in France have its associated costs covered by social security), the trans-person must first meet certain minimum eligibility criteria set forth in the Harry Benjamin International Gender Dysphoria Association’s Standards of Care, including diagnosis with a gender identity disorder by a mental health professional or physician. Preciado in this way situates herself [sic] within a biopolitically constructed space of clandestinity and non-recognition . . . .22 Some commentators see this dynamic as characteristic of wider tensions between trans\* communities and disciplinary powers in the Global North, arguing that trans\* people ‘seek access to surgical, hormonal and psychotherapeutic treatments, but seek to avoid pathologisation and stigmatisation – this is a defining characteristic, perhaps the central dilemma, of their relationship with clinicians’.23 This dilemma is one reason why some people with the means to do so might choose to sidestep an official diagnosis as a means of accessing treatments and technologies. As with feminist self-help in the 1970s, a fractious relationship with healthcare infrastructures drives people to find different ways of accessing care, often tied to self-experimentation within politicized support networks. The grasp of gatekeepers upon both knowledges and technologies has loosened significantly in recent years, however, as reflected by clinical guidelines. The Royal College of Psychiatrists notes that ‘Hormones and hormone-blockers are readily available via the internet. The medical practitioner or specialist must consider the risks of harm to the patient by not prescribing hormones in these circumstances.’24 The guidance, therefore, is that GPs or other non-specialist medical practitioners ‘prescribe “bridging” endocrine treatments as part of a holding and harm reduction strategy while the patient awaits specialised endocrinology or other gender identity treatment’.25 We can see that having alternative means of accessing information, peer support, and pharmaceuticals has forced profound changes in the way the medical establishment conceives of treatment. This represents a new means of resisting those institutions that have historically fought to restabilize the disciplinary grid of gender in the face of biotechnical innovations that might unsettle it. By taking testosterone in an unsanctioned fashion, Preciado uses technical intervention within and upon the body as a means of contesting the pharmacopornographic regime that constitutes him. He expresses this quite forcefully at times, insisting that ‘your body, the body of the multitude and the pharmacopornographic networks that constitute them are political laboratories, both effects of the process of subjection and control and potential spaces for political agency and critical resistance to normalization’.26 In a move that clearly resonates with self-help’s privileging of the lay healer, Preciado explicitly frames auto-experimental engagements with embodiment as part of a tradition of radical amateurism. This is associated particularly with herbalists, midwives, and witches – practitioners who were deliberately excluded from medicine in order to enable its simultaneous professionalization and masculinization. Preciado claims that the coming of modernity involved a widespread ‘process of eradicating knowledge and lower-class power while simultaneously working to reinforce the hegemonic knowledge of the expert, something indispensable to the gradual insertion of capitalism on a global scale’.27 Networked communication technologies, however, have made it increasingly difficult to continue stockpiling knowledge in exclusionary ways.

**Specifically true for queer narratives--living in a heteronormative society means that queer values are always pushed aside and stigmatized, making us believe it’s not important enough. That uniquely creates an obligation to prioritize it**

**Elias 2003** (John Elias, Professor at San Francisco University, Journal of Homosexuality, Vol. 45, no. 2/3/4, p. 64, 2003) Blair AC

Akin to organized religion and the biomedical field, the educational system has been a major offender. Wedded to disseminating the idea that heterosexuality is the ultimate and best form of sexuality, “Schools have maintained, by social custom and with reinforcement from the law, the promotion of the heterosexual family as predominant, and therefore the essence of normal. From having been presumed to be ‘normal,’ heterosexual behavior has gained status as the right, good, and ideal lifestyle” (Leck, 1999, p. 259). School culture in general is fraught with heteronormativity. Our society has long viewed queer sexualities as “. . . deviant, sinful, or both, and our schools are populated by adolescent peers and adult educators who share these heterosexual values” (Ginsberg, 1999, p. 55). Simply put, heteronormativity and sexual prejudice pervade the curriculum at the elementary, secondary, and post-secondary levels (for examples of this and ways of intervening, see: Adams, Bell, & Griffin, 1997; Letts & Sears, 1999; Lovaas, Baroudi, & Collins, 2002; Yep, 2002). Besides the hegemonic hold schools have had regarding a heterosexual bias, school culture continues to devote much energy to maintaining “. . . the status quo of our dominant social institutions, which are hierarchical, authoritarian, and unequal, competitive, racist, cissexist, and homophobic”

**Util is NOT morally neutral--justifies state demonization and torture of deviant queer bodies**

**Eskridge 2000.** William Eskridge, 2000, "No Promo Homo: The Sedimentation of Antigay Discourse and the Channeling Effect of Judicial Review", New York University Law Review, https://www.researchgate.net/publication/254730047\_No\_Promo\_Homo\_The\_Sedimentation\_of\_Antigay\_Discourse\_and\_the\_Channeling\_Effect\_of\_Judicial\_Review sean!

The new regulatory regime was supported, in part, by the argument that homosexuals are not just sinful sodomites, but are also biologically degenerate people who invert natural gender roles. Disgust was phrased in medical as well as religious terms. Other arguments were openly utilitarian, a reversal of Bentham's still-unpublished essay. American doctors maintained that homosexuals are psychopathic (unable to control their sexual impulses) and therefore predatory against children and youths.42 The vampire lesbian and the homosexual child molester were tropes in place by World War I and were deployed vigorously before and after World War II to justify state campaigns that not only condemned and penalized homosexuals, but hunted them and medically treated their hypersexualized bodies with electricity, chemicals, and scalpels.

**Prioritize probability--anything else justifies ridiculous conclusions and freezes action. We’re psychologically biased to err on the side of large scale threats**

**Kessler 08** (Oliver; April 2008; PhD in IR, professor of sociology at the University of Bielefeld, and professor of history and theory of IR at the Faculty of Arts; Alternatives, Vol. 33, “From Insecurity to Uncertainty: Risk and the Paradox of Security Politics” p. 211-232)

The problem of the second method is that it is very difficult to "calculate" politically unacceptable losses. If the risk of terrorism is defined in traditional terms by probability and potential loss, then the focus on dramatic terror attacks leads to the marginalization of probabilities. The reason is that even the highest degree of improbability becomes irrelevant as the measure of loss goes to infinity.^o The mathematical calculation of the risk of terrorism thus tends to overestimate and to dramatize the danger. This has consequences beyond the actual risk assessment for the formulation and execution of "risk policies": If one factor of the risk calculation approaches infinity (e.g., if a case of nuclear terrorism is envisaged), then there is no balanced measure for antiterrorist efforts, and risk management as a rational endeavor breaks down. Under the historical condition of bipolarity, the "ultimate" threat with nuclear weapons could be balanced by a similar counterthreat, and new equilibria could be achieved, albeit on higher levels of nuclear overkill. Under the new condition of uncertainty, no such rational balancing is possible since knowledge about actors, their motives and capabilities, is largely absent. The second form of security policy that emerges when the deterrence model collapses mirrors the "social probability" approach. It represents a logic of catastrophe. In contrast to risk management framed in line with logical probability theory, the logic of catastrophe does not attempt to provide means of absorbing uncertainty. Rather, it takes uncertainty as constitutive for the logic itself; uncertainty is a crucial precondition for catastrophes. In particular, catastrophes happen at once, without a warning, but with major implications for the world polity. In this category, we find the impact of meteorites. Mars attacks, the tsunami in South East Asia, and 9/11. To conceive of terrorism as catastrophe has consequences for the formulation of an adequate security policy. Since catastrophes hap-pen irrespectively of human activity or inactivity, no political action could possibly prevent them. Of course, there are precautions that can be taken, but the framing of terrorist attack as a catastrophe points to spatial and temporal characteristics that are beyond "rationality." Thus, political decision makers are exempted from the responsibility to provide security—as long as they at least try to preempt an attack. Interestingly enough, 9/11 was framed as catastrophe in various commissions dealing with the question of who was responsible and whether it could have been prevented. This makes clear that under the condition of uncertainty, there are no objective criteria that could serve as an anchor for measuring dangers and assessing the quality of political responses. For ex- ample, as much as one might object to certain measures by the US administration, it is almost impossible to "measure" the success of countermeasures. Of course, there might be a subjective assessment of specific shortcomings or failures, but there is no "common" currency to evaluate them. As a consequence, the framework of the security dilemma fails to capture the basic uncertainties. Pushing the door open for the security paradox, the main problem of security analysis then becomes the question how to integrate dangers in risk assessments and security policies about which simply nothing is known. In the mid 1990s, a Rand study entitled "New Challenges for Defense Planning" addressed this issue arguing that "most striking is the fact that we do not even know who or what will constitute the most serious future threat, "^i In order to cope with this challenge it would be essential, another Rand researcher wrote, to break free from the "tyranny" of plausible scenario planning. The decisive step would be to create "discontinuous scenarios ... in which there is no plausible audit trail or storyline from current events"52 These nonstandard scenarios were later called "wild cards" and became important in the current US strategic discourse. They justified the transformation from a threat-based toward a capability- based defense planning strategy.53 The problem with this kind of risk assessment is, however, that even the most absurd scenarios can gain plausibility. By constructing a chain of potentialities, improbable events are linked and brought into the realm of the possible, if not even the probable. "Although the likelihood of the scenario dwindles with each step, the residual impression is one of plausibility. "54 This so-called Othello effect has been effective in the dawn of the recent war in Iraq. The connection between Saddam Hussein and Al Qaeda that the US government tried to prove was disputed from the very beginning. False evidence was again and again presented and refuted, but this did not prevent the administration from presenting as the main rationale for war the improbable yet possible connection between Iraq and the terrorist network and the improbable yet possible proliferation of an improbable yet possible nuclear weapon into the hands of Bin Laden. As Donald Rumsfeld famously said: "Absence of evidence is not evidence of absence." This sentence indicates that under the condition of genuine uncertainty, different evidence criteria prevail than in situations where security problems can be assessed with relative certainty.

**Predictions of rare events like extinction is next to impossible – that requires focus on empirically verified events already happening rather than improbable predictive analytics**

**Glover 12** (7/21/12, Robert W. Glover is the CLAS Honors Preceptor in Political Science at the University of Maine. “Compatibility or Incommensurability: IR Theory and Complex Systems Analysis” <http://www.e-ir.info/2012/07/21/compatibility-or-incommensurability-ir-theory-and-complex-systems-analysis/#_ftn1>)

A recent New York Times op-ed, written by a professor of political science no less, lambasted the discipline for consistently failing to predict both international and domestic political outcomes. It boldly proclaimed “…[c]himps throwing darts at possible outcomes would have done almost as well as the experts.”[1] To add insult to injury, the article featured a picture of a primate armed with darts taking aim at circular boards marked with regions of the world, possible outcomes, and likelihoods. The upshot of the article was that political science simply shouldn’t be in the business of prediction. Stevens quotes Karl Popper, stating “[l]ong term prophecies can be derived from scientific conditional predictions only if they apply to systems which can be described as well-isolated, stationary, and recurrent. These systems are very rare in nature; and modern society is not one of them.”[2] Though such indictments of our intellectual enterprise may be painful to hear, they are also correct in many senses. Political science, and by extension international relations (IR), has had difficulties in predicting future events with any accuracy or specificity. The guiding principles of “traditional” or “mainstream” approaches to IR have generally held that there is observable order in world affairs, from which we can offer explanations and make predictions. It is the great hope of our discipline that “there is an external world of which we can have knowledge…” and the notion that IR is “grounded in lawlike regularities that allow the possibility of making claims about how the ‘international’ operates.”[3] Yet if this were the case, surely we’d be doing a better job at forecasting international outcomes. The invocation of Popper reminds us why our best laid plans have gone awry. Social systems, from the most basic to the most intricate, almost invariably involve the complex interface of many variables, opaque interaction effects, and elements of chance and human variability. As Jervis states, “…[t]he result is that systems often display non-linear relationships, outcomes cannot be understood by the adding together of units or their relations and many of the results of actions are unintended. Complexities can appear in even what would seem to be simple and deterministic situations.”[4] Beyond prediction, even our attempts at post-hoc explanation tend to rely upon reductionism. That is to say we reduce the irreducibly complex to pithy “cause and effect” relationships. The 2008 war between Russia and Georgia was caused by a dispute over South Ossetia. The 1997 economic crisis was triggered by currency instability in Southeast Asia. The recent political upheaval in Egypt stemmed from technologically savvy young people angered with the corruption of Mubarak’s regime and a stagnant economy. These are the types of concise explanations we offer for events of enormous, systemic, complexity. However, IR theory has been grappling with a new set of tools which originate in the study of the natural world, specifically physics and biology. We call these tools “complex systems analysis” or in its more conceptual variant, “complexity theory.”[5] Complexity is not a unified theory as such, but rather an “emerging approach or framework” drawn from a variety of sources.[6] Proponents argue that IR can achieve better understanding of the world utilizing conceptual lenses attuned to the interaction of large numbers of variables and actors, interacting in a non-linear (and hence, less predictable) fashion. The remainder of this article will examine the rudiments of complexity theory, as well as its promise as a conceptual tool in understanding international relations. In particular, I will focus upon whether complexity theory constitutes a framework compatible with existing IR theories, or a fundamental and incommensurable challenge to the present theoretical landscape of IR

**“Slow violence” first - it has exponential magnitude and is a threat multiplier**

**Nixon 11** (Rob, Rachel Carson Professor of English, University of Wisconsin-Madison, Slow Violence and the Environmentalism of the Poor, pgs. 2-3)

Three primary concerns animate this book, chief among them my conviction that we urgently need to rethink-politically, imaginatively, and theoretically-what I call "slow violence." By slow violence I mean a violence that occurs gradually and out of sight, a violence of delayed destruction that is dispersed across time and space, an attritional violence that is typically not viewed as violence at all. Violence is customarily conceived as an event or action that is immediate in time, explosive and spectacular in space, and as erupting into instant sensational visibility. We need, I believe, to engage a different kind of violence, a violence that is neither spectacular nor instantaneous, but rather incremental and accretive, its calamitous repercussions playing out across a range of temporal scales. In so doing, we also need to engage the representational, narrative, and strategic challenges posed by the relative invisibility of slow violence. Climate change, the thawing cryosphere, toxic drift, biomagnification, deforestation, the radioactive aftermaths of wars, acidifying oceans, and a host of other slowly unfolding environmental catastrophes present formidable representational obstacles that can hinder our efforts to mobilize and act decisively. The long dyings-the staggered and staggeringly discounted casualties, both human and ecological that result from war's toxic aftermaths or climate change-are underrepresented in strategic planning as well as in human memory. Had Summers advocated invading Africa with weapons of mass destruction, his proposal would have fallen under conventional definitions of violence and been perceived as a military or even an imperial invasion. Advocating invading countries with mass forms of slow-motion toxicity, however, requires rethinking our accepted assumptions of violence to include slow violence. Such a rethinking requires that we complicate conventional assumptions about violence as a highly visible act that is newsworthy because it is event focused, time bound, and body bound. We need to account for how the temporal dispersion of slow violence affects the way we perceive and respond to a variety of social afflictions-from domestic abuse to posttraumatic stress and, in particular, environmental calamities. A major challenge is representational: how to devise arresting stories, images, and symbols adequate to the pervasive but elusive violence of delayed effects. Crucially, slow violence is often not just attritional but also exponential, operating as a major threat multiplier; it can fuel long-term, proliferating conflicts in situations where the conditions for sustaining life become increasingly but gradually degraded.

**Sparks nationalist sentiments on a larger scale and turns big-stick scenarios**

**Solt 11**, Frederick. "Diversionary nationalism: Economic inequality and the formation of national pride." The Journal of Politics 73.3 (2011): 821-830. (Ph.D. in Political Science from University of North Carolina at Chapel Hill, currently Associate Professor of Political Science at the University of Iowa, Assistant Professor, Departments of Political Science and Sociology, Southern Illinois at the time of publication)//Elmer

One of the oldest theories of nationalism is that states instill the nationalist myth in their citizens to divert their attention from great economic inequality and so forestall pervasive unrest. Because the very concept of nationalism obscures the extent of inequality and is a potent tool for delegitimizing calls for redistribution, it is a perfect diversion, and states should be expected to engage in more nationalist mythmaking when inequality increases. The evidence presented by this study supports this theory: across the countries and over time, where economic inequality is greater, nationalist sentiments are substantially more widespread. This result adds considerably to our understanding of nationalism. To date, many scholars have focused on the international environment as the principal source of threats that prompt states to generate nationalism; the importance of the domestic threat posed by economic inequality has been largely overlooked. However, at least in recent years, domestic inequality is a far more important stimulus for the generation of nationalist sentiments than the international context. Given that nuclear weapons—either their own or their allies’—rather than the mass army now serve as the primary defense of many countries against being overrun by their enemies, perhaps this is not surprising: nationalism-inspired mass mobilization is simply no longer as necessary for protection as it once was (see Mearsheimer 1990, 21; Posen 1993, 122–24). Another important implication of the analyses presented above is that growing economic inequality may increase ethnic conflict. States may foment national pride to stem discontent with increasing inequality, but this pride can also lead to more hostility towards immigrants and minorities. Though pride in the nation is distinct from chauvinism and outgroup hostility, it is nevertheless closely related to these phenomena, and recent experimental research has shown that members of majority groups who express high levels of national pride can be nudged into intolerant and xenophobic responses quite easily (Li and Brewer 2004). This finding suggests that, by leading to the creation of more national pride, higher levels of inequality produce environments favorable to those who would inflame ethnic animosities. Another and perhaps even more worrisome implication regards the likelihood of war. Nationalism is frequently suggested as a cause of war, and more national pride has been found to result in a much greater demand for national security even at the expense of civil liberties (Davis and Silver 2004, 36–37) as well as preferences for “a more militaristic foreign affairs posture and a more interventionist role in world politics” (Conover and Feldman 1987, 3). To the extent that these preferences influence policymaking, the growth in economic inequality over the last quarter century should be expected to lead to more aggressive foreign policies and more international conflict. If economic inequality prompts states to generate diversionary nationalism as the results presented above suggest, then rising inequality could make for a more dangerous world. The results of this work also contribute to our still limited knowledge of the relationship between economic inequality and democratic politics. In particular, it helps explain the fact that, contrary to median-voter models of redistribution (e.g., Meltzer and Richard 1981), democracies with higher levels of inequality do not consistently respond with more redistribution (e.g., Bénabou 1996). Rather than allowing redistribution to be decided through the democratic process suggested by such models, this work suggests that states often respond to higher levels of inequality with more nationalism. Nationalism then works to divert attention from inequality, so many citizens neither realize the extent of inequality nor demand redistributive policies. By prompting states to promote nationalism, greater economic inequality removes the issue of redistribution from debate and therefore narrows the scope of democratic politics.

**The media and state are likely to overinflate the threat--err heavily aff**

**Jackson 12**—Director of the National Centre for Peace and Conflict Studies, the University of Otago. Former. Professor of International Politics at Aberystwyth University (8/5/12, Richard, The Great Con of National Security, http://richardjacksonterrorismblog.wordpress.com/2012/08/05/the-great-con-of-national-security/)

It may have once been the case that being attacked by another country was a major threat to the lives of ordinary people. It may also be true that there are still some pretty serious dangers out there associated with the spread of nuclear weapons. For the most part, however, most of what you’ve been told about national security and all the big threats which can supposedly kill you is one big con designed to distract you from the things that can really hurt you, such as the poverty, inequality and structural violence of capitalism, global warming, and the manufacture and proliferation of weapons – among others. The facts are simple and irrefutable: you’re far more likely to die from lack of health care provision than you are from terrorism; from stress and overwork than Iranian or North Korean nuclear missiles; from lack of road safety than from illegal immigrants; from mental illness and suicide than from computer hackers; from domestic violence than from asylum seekers; from the misuse of legal medicines and alcohol abuse than from international drug lords. And yet, politicians and the servile media spend most of their time talking about the threats posed by terrorism, immigration, asylum seekers, the international drug trade, the nuclear programmes of Iran and North Korea, computer hackers, animal rights activism, the threat of China, and a host of other issues which are all about as equally unlikely to affect the health and well-being of you and your family. Along with this obsessive and perennial discussion of so-called ‘national security issues’, the state spends truly vast sums on security measures which have virtually no impact on the actual risk of dying from these threats, and then engages in massive displays of ‘security theatre’ designed to show just how seriously the state takes these threats – such as the x-ray machines and security measures in every public building, surveillance cameras everywhere, missile launchers in urban areas, drones in Afghanistan, armed police in airports, and a thousand other things. This display is meant to convince you that these threats are really, really serious. And while all this is going on, the rulers of society are hoping that you won’t notice that increasing social and economic inequality in society leads to increased ill health for a growing underclass; that suicide and crime always rise when unemployment rises; that workplaces remain highly dangerous and kill and maim hundreds of people per year; that there are preventable diseases which plague the poorer sections of society; that domestic violence kills and injures thousands of women and children annually; and that globally, poverty and preventable disease kills tens of millions of people needlessly every year. In other words, they are hoping that you won’t notice how much structural violence there is in the world. More than this, they are hoping that you won’t notice that while literally trillions of dollars are spent on military weapons, foreign wars and security theatre (which also arguably do nothing to make any us any safer, and may even make us marginally less safe), that domestic violence programmes struggle to provide even minimal support for women and children at risk of serious harm from their partners; that underfunded mental health programmes mean long waiting lists to receive basic care for at-risk individuals; that drug and alcohol rehabilitation programmes lack the funding to match the demand for help; that welfare measures aimed at reducing inequality have been inadequate for decades; that health and safety measures at many workplaces remain insufficiently resourced; and that measures to tackle global warming and developing alternative energy remain hopelessly inadequate. Of course, none of this is surprising. Politicians are a part of the system; they don’t want to change it. For them, all the insecurity, death and ill-health caused by capitalist inequality are a price worth paying to keep the basic social structures as they are. A more egalitarian society based on equality, solidarity, and other non-materialist values would not suit their interests, or the special interests of the lobby groups they are indebted to. It is also true that dealing with economic and social inequality, improving public health, changing international structures of inequality, restructuring the military-industrial complex, and making the necessary economic and political changes to deal with global warming will be extremely difficult and will require long-term commitment and determination. For politicians looking towards the next election, it is clearly much easier to paint immigrants as a threat to social order or pontificate about the ongoing danger of terrorists. It is also more exciting for the media than stories about how poor people and people of colour are discriminated against and suffer worse health as a consequence. Viewed from this vantage point, national security is one massive confidence trick – misdirection on an epic scale. Its primary function is to distract you from the structures and inequalities in society which are the real threat to the health and wellbeing of you and your family, and to convince you to be permanently afraid so that you will acquiesce to all the security measures which keep you under state control and keep the military-industrial complex ticking along. Keep this in mind next time you hear a politician talking about the threat of uncontrolled immigration, the risk posed by asylum seekers or the threat of Iran, or the need to expand counter-terrorism powers. The question is: when politicians are talking about national security, what is that they don’t want you to think and talk about? What exactly is the misdirection they are engaged in? The truth is, if you think that terrorists or immigrants or asylum seekers or Iran are a greater threat to your safety than the capitalist system, you have been well and truly conned, my friend. Don’t believe the hype: you’re much more likely to die from any one of several forms of structural violence in society than you are from immigrants or terrorism. Somehow, we need to challenge the politicians on this fact.

**Here’s the real truth behind the risk of extinction**

**Simpson 16** – Fergus Simpson, Mathematician at the University of Barcelona. [Apocalypse Now? Reviving the Doomsday Argument, https://arxiv.org/abs/1611.03072]//BPS

Whether the fate of our species can be forecast from its past has been the topic of considerable controversy. One refutation of the so-called Doomsday Argument is based on the premise that we are more likely to exist in a universe containing a greater number of observers. Here we present a Bayesian reformulation of the Doomsday Argument which is immune to this effect. By marginalizing over the spatial configuration of observers, we find that any preference for a larger total number of observers has no impact on the inferred local number. Our results remain unchanged when we adopt either the Self-Indexing Assumption (SIA) or the Self-Sampling Assumption (SSA). Furthermore the median value of our posterior distribution is found to be in agreement with the frequentist forecast. Humanity's prognosis for the coming century is well approximated by a global catastrophic risk of 0.2% per year.

**HIV and COVID disprove and thump any disad link**

**Garrett 21** [Laurie Garrett, a former senior fellow for global health at the Council on Foreign Relations and a Pulitzer Prize winning science writer, 5-7-2021, "Stopping Drug Patents Has Stopped Pandemics Before," archive.is, https://archive.is/DKUyZ#selection-1215.4-1215.124, accessed 9-14-2021] BCortez

As millions of HIV positive people living in wealthy countries switched overnight from planning their funerals to building up retirement accounts, the miracle of combination antiviral therapy was denied to millions more living with AIDS in sub-Saharan Africa and other poorer regions. A battle unfolded, pitting a reluctant—even obstinate—pharmaceutical industry against AIDS activists, physicians, and political leaders from developing countries. In 2002, former U.S. President Bill Clinton intervened, using his bully pulpit in consultation with a team of academic experts convened by his philanthropic foundation to contrive a tech-transfer scheme that had Western pharmaceutical companies provide their patented drug formulas to Indian generic manufacturing companies, ultimately bringing down annual [treatment costs](https://archive.is/o/DKUyZ/https:/frontlineaids.org/how-patents-affect-access-to-hiv-treatment/) from nearly $10,000 to less than $100.∂ Far from bringing chaos to the pharmaceutical industry and stifling innovation, the Clinton Foundation’s maneuver around the strict enforcement of intellectual property laws [ushered](https://archive.is/o/DKUyZ/https:/www.uspharmacist.com/article/newly-approved-hiv-medications) in a dramatic era of HIV [drug invention](https://archive.is/o/DKUyZ/https:/www.aidsmap.com/about-hiv/a-z-antiretroviral-medications) that improved the antiviral power of treatment, lowered drug side effects, developed new drug forms that are now taken to prevent infection, increased options for pediatric care, and greatly improved the methods for which HIV positive individuals could take their life-sparing treatments. Despite the loss of guaranteed patent protection and pressure to transfer technology to, primarily, Indian pharmaceutical companies, wealthy nations’ drug [companies have profited](https://archive.is/o/DKUyZ/https:/www.statista.com/statistics/273434/revenue-of-the-worlds-most-important-aids-drugs/%23:~:text=Globally,%20the%20top%20drug%20for,billion%20U.S.%20dollars%20in%20revenue.) and [continue to innovate](https://archive.is/o/DKUyZ/https:/www.aidsmap.com/sites/default/files/2019-07/ARV_drugchart_2019_final_web.pdf) on the [HIV/AIDS](https://archive.is/o/DKUyZ/https:/www.fda.gov/news-events/press-announcements/fda-approves-new-hiv-treatment-patients-limited-treatment-options%23:~:text=Today,%20the%20U.S.%20Food%20and,resistance,%20intolerance%20or%20safety%20considerations.) front.∂ Of the multiple COVID-19 vaccines currently in use, the most promising—the mRNA and adenovirus vector products—all arose from government-funded research, mostly based in academic research centers. AstraZeneca’s vaccine, for example, grew out of the United Kingdom’s government-back research and development at Oxford University. The Moderna and Pfizer mRNA vaccines grew out of years of [National Institutes of Health-funded research](https://archive.is/o/DKUyZ/https:/twitter.com/MMKavanagh/status/1390282745356726275/photo/1) in the United States and with predecessor [Ebola vaccines](https://archive.is/o/DKUyZ/https:/www.niaid.nih.gov/diseases-conditions/ebola-vaccines) in the Democratic Republic of the Congo, Guinea, Sierra Leone, and Liberia. China’s vaccine built on years of [military immunization work](https://archive.is/o/DKUyZ/https:/www.nature.com/articles/d41586-020-02523-x).∂ And thanks to Operation Warp Speed, many companies involved in the vaccine chain of production have [benefited](https://archive.is/o/DKUyZ/https:/www.wionews.com/world/vaccine-profits-why-big-pharma-is-defending-patents-amid-pandemic-382817) with a total of $18 billion of U.S. government subsidies. The speed and scale of COVID-19 vaccine production in the United States is largely thanks to the country’s taxpayers. This week, [Pfizer reported](https://archive.is/o/DKUyZ/https:/www.nytimes.com/2021/05/04/business/pfizer-covid-vaccine-profits.html%23:~:text=The%20company%20said%20its%20vaccine,three%20months%20of%20this%20year.&text=The%20vaccine%20brought%20in%20$3.5,its%20total%20revenue,%20Pfizer%20reported.) earning $3.5 billion in profits during the first quarter of this year from its COVID-19 vaccine. [Moderna earned](https://archive.is/o/DKUyZ/https:/www.wsj.com/articles/moderna-turns-first-ever-profit-boosted-by-its-covid-19-vaccine-11620302289) the first profits the fledgling company has ever seen—$1.73 billion—and projects nearly $20 billion in earnings this year. Despite setbacks, [both the AstraZeneca and Johnson & Johnson](https://archive.is/o/DKUyZ/https:/www.theguardian.com/business/2021/mar/06/from-pfizer-to-moderna-whos-making-billions-from-covid-vaccines) adenovirus vector vaccines are making handy profits, projected to each garner multiple billions of dollars this year. Even Sinopharm from China and Gamaleya from Russia expect to reap ample profits in 2021, both in cash and diplomacy, as they sell vaccines directly to key governments. The [Novavax company](https://archive.is/o/DKUyZ/https:/seekingalpha.com/article/4410569-novavax-inc-nvax-ceo-stan-erck-on-q4-2020-results-earnings-call-transcript), which makes a not-yet-approved protein vaccine, expects massive earnings in late 2021.∂ Despite the threat of patent-voiding, all of these companies—as well as a long list of would-be vaccine makers further back in the research and development pipeline—have continued to innovate, trying to find formulations that can battle variant strains of the virus; be stored at room temperature; and get administered via skin patches, orally, or in a nasal mist. The creativity at these companies continues—and there’s no reason to think it will stop anytime soon.∂ It remains to be seen how many countries with big pharmaceutical industries will follow the Biden administration’s lead in liberalizing patent protections for COVID-19-related vaccines and drugs. The WTO operates by consensus from member states, so the United States can’t unilaterally alter the global landscape. But [Ngozi Okonjo-Iweala](https://archive.is/o/DKUyZ/https:/www.wto.org/english/news_e/news21_e/dgno_15feb21_e.htm), the new WTO director-general, is already raising the heat. A former Nigerian minister of finance, ex-World Bank official, and the first African and woman to hold the coveted World Trade Organization position, Okonjo-Iweala made it clear from her first day in office that a TRIPS-waiver for COVID-19-related products was her [top priority](https://archive.is/o/DKUyZ/https:/www.un.org/africarenewal/magazine/march-2021/what-africa-expects-new-wto-director-general).

**Reform is good**

**Smucker 14**’ (John Smucker, “The danger of fetishizing revolution”. July 1, 2014. <http://wagingnonviolence.org/feature/danger-fetishizing-revolution/>. KLB) RCT SR

If we project a totalizing imaginary-future moment onto our own situation, we may also fixate on present-day moments that seem to carry the essence of our ideas about such an imagined “revolution.” We may elevate ritualistic signifiers of revolutionary zeal above winning real-world victories and above the patient construction of social bases of collective power that could win bigger, more systemic — we might even say revolutionary — changes. Revolution as apocalypse or as a totalizing moment is highly related to utopianism. The practical implications of the two concepts are equivalent. With both orientations a post-revolutionary, utopian vision of the future can become the distorted lens through which to view the messy present. Nothing in present society, including stepping-stone victories, can measure up to utopian standards. It is as if the revolutionary or utopian “dreamer” is afraid of contaminating the purity of his or her vision with the grit of real life. In reality, the seeds of society’s “redemption” — the fits and starts of social justice struggles — are always manifest in the fabric of what already exists in society. The job of effective change agents is to identify and encourage these fits and starts; to awaken and empower the “better angels” that we find in our histories and our contemporary cultures; to claim and contest both history and culture, rather than try to build from scratch in the ashes of an imaginary-future apocalypse. This is not at all to suggest that we give up on big structural changes — even including ultimately ending capitalism. To the extent that “revolutionary” means “big structural changes” I am all for being revolutionary. The problem here is not the radicalness of our end goal; the problem [it] is all-or-nothing apocalyptic thinking about political change in the meantime. If the structures of society were to collapse tomorrow, why would society reconstruct itself in a way that substantially differs from its present structure? A revolutionary social justice movement will not magically ascend in the wake of catastrophe. A movement gains strength by organizing over time, by showing more and more people that it can succeed. By winning small victories, it begins to overcome popular resignation, awakening hope in people that it is possible to fight for something and win — that collective action “gets the goods.” If a movement is incapable of winning even small things, why should anyone believe it capable of winning a revolution — of accelerating “from zero to sixty” in a mere moment? Most people are not going to join our movement because they want to ride with us into the apocalypse; they join when they have enough reason to believe that the movement can act effectively as a vehicle to bring about changes that matter to them. It’s on us to show that this is indeed possible.