## 1NC

### 1

#### Interpretation: Intellectual property protections is a generic bare plural. The aff may not defend that member nations of the World Trade Organization reduce a subset of intellectual property protections for medicines.

Leslie 16 Leslie, Sarah-Jane [Sarah-Jane Leslie (Ph.D., Princeton, 2007) is the dean of the Graduate School and Class of 1943 Professor of Philosophy. She has previously served as the vice dean for faculty development in the Office of the Dean of the Faculty, director of the Program in Linguistics, and founding director of the Program in Cognitive Science at Princeton University. She is also affiliated faculty in the Department of Psychology, the University Center for Human Values, the Program in Gender and Sexuality Studies, and the Kahneman-Treisman Center for Behavioral Science and Public Policy], 4-24-2016, "Generic Generalizations (Stanford Encyclopedia of Philosophy)," <https://plato.stanford.edu/entries/generics/> SM

Isolating the Generic Interpretation Consider the following pairs of sentences: (1) a. Tigers are striped. b. Tigers are on the front lawn. (2) a. A tiger is striped. b. A tiger is on the front lawn. (3) a. The tiger is striped. b. The tiger is on the front lawn. The sentence pairs above are prima facie syntactically parallel—both are subject-predicate sentences whose subjects consist of the same common noun coupled with the same, or no, article. However, the interpretation of first sentence of each pair is intuitively quite different from the interpretation of the second sentence in the pair. In the second sentences, we are talking about some particular tigers: a group of tigers in (1b), some individual tiger in (2b), and some unique salient or familiar tiger in (3b)—a beloved pet, perhaps. In the first sentences, however, we are saying something general. There is/are no particular tiger or tigers that we are talking about. The second sentences of the pairs receive what is called an existential interpretation. The hallmark of the existential interpretation of a sentence containing a bare plural or an indefinite singular is that it may be paraphrased with “some” with little or no change in meaning; hence the terminology “existential reading”. The application of the term “existential interpretation” is perhaps less appropriate when applied to the definite singular, but it is intended there to cover interpretation of the definite singular as referring to a unique contextually salient/familiar particular individual, not to a kind. There are some tests that are helpful in distinguishing these two readings. For example, the existential interpretation is upward entailing, meaning that the statement will always remain true if we replace the subject term with a more inclusive term. Consider our examples above. In (1b), we can replace “tiger” with “animal” salva veritate, but in (1a) we cannot. If “tigers are on the lawn” is true, then “animals are on the lawn” must be true. However, “tigers are striped” is true, yet “animals are striped” is false. (1a) does not entail that animals are striped, but (1b) entails that animals are on the front lawn (Lawler 1973; Laca 1990; Krifka et al. 1995). Another test concerns whether we can insert an adverb of quantification with minimal change of meaning (Krifka et al. 1995). For example, inserting “usually” in the sentences in (1a) (e.g., “tigers are usually striped”) produces only a small change in meaning, while inserting “usually” in (1b) dramatically alters the meaning of the sentence (e.g., “tigers are usually on the front lawn”). (For generics such as “mosquitoes carry malaria”, the adverb “sometimes” is perhaps better used than “usually” to mark off the generic reading.) 1.2 Stage Level and Individual Level Predicates Having distinguished two quite different meanings of these seemingly similar sentence pairs, the question arises: what is the basis of these two interpretations? This is of course a matter of debate, but one important thesis is that it is the predicate that determines which of the two readings the subject will receive, particularly in the case of bare plural generics. In his 1977 dissertation, Greg Carlson argued that the distinction between “stage level” and “individual level” predicates is key here, and proposed that stage level predications give rise to existential readings of bare plurals and indefinite singulars, while individual level ones give rise to generic readings. The distinction between the two types of predicates can be drawn intuitively, and also on the basis of linguistic patterns (Milsark 1974; Carlson 1977; Stump 1985). Semantically, individual level predicates express properties that normally are had by items for quite extended periods, often comprising the items’ whole existence. Stage-level predicates, on the other hand, express properties normally had by items for relatively short time intervals. Some examples of both types are as follows: Individual level predicates “is tall”; “is intelligent”; “knows French”; “is a mammal”; “is female”; “is a singer”; “loves Bob”; “hates Bob” Stage level predicates “is drunk”; “is barking”; “is speaking French”; “is taking an exam”; “is sober”; “is sick”, “is sitting”; “is on the lawn”, “is in the room”. Clearly the semantic distinction is not hard and fast: a teetotaler may be sober for the entire course of his existence, and the chronically ill may be sick for the entire course of theirs, and Alice in Wonderland is tall at some times but short at others. In the normal course of affairs, individual level predicates express more stable and less temporally intermittent properties than stage level ones do. The distinction also manifests itself linguistically. Stage level predicates are permissible in the following constructions, while individual level ones are not: (4) John saw Bill drunk/sober/sick/naked. (5) John saw Bill speaking French/taking an exam/smoking cigarettes. (6) John saw Bill on the lawn/in the room. (7) \*John saw Bill intelligent/tall/a mammal/male. (8) \*John saw Bill knowing French/hating Bob. There-insertion constructions behave similarly: (9) There are men drunk/sober/sick/naked. (10) There are men speaking French/taking an exam/smoking cigarettes. (11) There are men on the lawn/in the room. (12) \*There are men intelligent/tall/mammals/male. (13) \*There are men knowing French/hating Bob. Stage level predicates can be modified by locatives, while individual level ones cannot: (14) John is drunk/speaking French/smoking in 1879 Hall. (15) \*John is a mammal/intelligent/male in 1879 Hall. (16) \*John knows French/hates Bob in 1879 Hall. Carlson noted the difference in syntactic behavior between individual and stage level predicates, and proposed that the distinction between the classes of predicates underlies the distinction between existential and generic readings of bare plurals: (17) Students are drunk/speaking French/on the lawn. (existential) (18) Students are intelligent/mammals/tall/male. (generic) (19) Students know French/hate Bob. (generic) Stage level predicates appear to give rise to the existential reading of bare plurals, while individual level ones give rise to generic readings. Carlson also took the distinction to underwrite the difference between existential and generic readings of the indefinite singular:

#### Violation: they defend patents

#### It applies to IP protections:

#### Upward entailment test – spec fails the upward entailment test because saying that nations ought to reduce one type of IPP does not entail that those nations ought to reduce all kinds of IPP

#### Adverb test – adding “usually” to the res doesn’t substantially change its meaning because a reduction is universal and permanent

#### Vote neg:

#### Semantics outweigh:

#### T is a constitutive rule of the activity and a basic aff burden – they agreed to debate the topic when they came here

#### Jurisdiction – you can’t vote aff if they haven’t affirmed the resolution

#### It’s the only stasis point we know before the round so it controls the internal link to engagement – there’s no way to use ground if debaters aren’t prepared to defend it

#### Limits – there are countless affs accounting for every kind of intellectual property protections, like tertiary patents, provisional patents, and design patents – unlimited topics incentivize obscure affs that negs won’t have prep on – limits are key to reciprocal prep burden – potential abuse doesn’t justify foregoing the topic and 1AR theory checks PICs

#### TVA solves – read as an advantage to whole rez

#### Paradigm issues:

#### Drop the debater – their abusive advocacy skewed the debate from the start

#### Comes before 1AR and 1AC theory – NC abuse is responsive to them not being topical

#### No RVIs – fairness and education are a priori burdens – and encourages baiting – outweighs because if T is frivolous, they can beat it quickly

#### Fairness is a voter ­– necessary to determine the better debater

#### Education is a voter – why schools fund debate

### 2

#### The shift to digital labor has forced the subject to become overwhelmed by the speed of process and unattuned to its environment. Global Governance is a managerial system where even in the aff’s attempt to increase access to research, it paradoxically reduces the paradigmatic function of knowledge.

Berardi, Franco. “Cognitarian Subjectivation.” E-Flux.com, November 2010, [www.e-flux.com/journal/20/67633/cognitarian-subjectivation/](http://www.e-flux.com/journal/20/67633/cognitarian-subjectivation/) |Harun|

Recent years have witnessed a new techno-social framework of contemporary subjectivation. And I would like to ask whether a process of autonomous, collective self-definition is possible in the present age. The concept of “general intellect” associated with Italian post-operaist thought in the 1990s (Paolo Virno, Maurizio Lazzarato, Christian Marazzi) emphasizes the interaction between labor and language: social labor is the endless recombination of myriad fragments producing, elaborating, distributing, and decoding signs and informational units of all kinds. Every semiotic segment produced by the information worker must meet and match innumerable other semiotic segments in order to form the combinatory frame of the info-commodity, semiocapital. Semiocapital puts neuro-psychic energies to work, submitting them to mechanistic speed, compelling cognitive activity to follow the rhythm of networked productivity. As a result, the emotional sphere linked with cognition is stressed to its limit. Cyberspace overloads cybertime, because cyberspace is an unbounded sphere whose speed can accelerate without limits, while cybertime (the organic time of attention, memory, imagination) cannot be sped up beyond a certain point—or it cracks. And it actually is cracking, collapsing under the stress of hyper-productivity. An epidemic of panic and depression is now spreading throughout the circuits of the social brain. The current crisis in the global economy has much to do with this nervous breakdown. Marx spoke of overproduction, meaning the excess of available goods that could not be absorbed by the social market. But today it is the social brain that is assaulted by an overwhelming supply of attention-demanding goods. The social factory has become the factory of unhappiness: the assembly line of networked production is directly exploiting the emotional energy of the cognitive class. I wish to pinpoint the problem of organic limits, which is often eclipsed by an emphasis on the limitless potential of technology. We should speak of technology in context, and the present context of technology is culturally oriented towards economic competition. Info-producers are neuro-workers. Their nervous systems act as active receiving terminals. They are sensitive to semiotic activation throughout the entire day. What emotional, psychic, existential price does the constant cognitive stress of permanent cognitive electrocution exact? The acceleration of network technologies, the general condition of precariousness, and the dependence on cognitive labor all induce pathological effects in the social mind, saturating attention time, compressing the sphere of emotion and sensitivity, as is shown by psychiatrists who have observed a steep increase in manic depression and suicide in the last generation of workers. The colonization of time has been a fundamental issue in the modern history of capitalist development: the anthropological mutation that capitalism produced in the human mind and in daily life has, above all, transformed the perception of time. But we are now leaping into the unknown—digital technologies have enabled absolute acceleration, and the short-circuiting of attention time. As info-workers are exposed to a growing mass of stimuli that cannot be dealt with according to the intensive modalities of pleasure and knowledge, acceleration leads to an impoverishment of experience. More information, less meaning. More information, less pleasure. Sensibility is activated in time. Sensuality is slow. Deep, intense elaboration becomes impossible when the stimulus is too fast. A process of desensitization is underway at the point where electronic cyberspace intersects with organic cybertime. The prospect of individual subjectivation, and of social subjectivation, has to be reframed in this context, and a series of radical questions arise: Is it still possible to envisage a process of collective subjectivation and social solidarity? Is it still possible to imagine a “movement” in the sense of a collective process of intellectual and political transformation of reality? Is it still possible to forge social autonomy from capitalist dominance in the psycho-economic framework of semiocapitalism? Dismantling General Intellect The refusal of work—which is better defined as a refusal of the alienation and exploitation of living time—has been the main engine of innovation, of technological development and knowledge. The organic composition of capital (as a relationship between dead labor and living labor) progressively changed throughout the twentieth century as the workers’ resistance, their sabotage and insubordination, forced capitalists to hire engineers to replace human labor with machines. Similarly, the intellectualization of human activity is—from any perspective—a consequence of the workers’ insubordination and resistance to exploitation. When the cost of labor increases (as happened in the 1960s and ’70s), the capitalist replaces worker with machine, as the machine is less costly in the long run. Since the massive wave of industrial workers’ resistance, information technology has helped to replace human toil with intelligent machines, and this has provoked the enhancement of the sphere of intellectual labor and cognitive activity linked to value production. The ’90s were a decade of alliances: cognitive labor and venture capital met and merged in the dot-com. Expectations were high, judging by the amount of investment, and creativity became an inherent feature of social labor. Then, after the dot-com bubble burst in spring of 2000, neoliberalism broke the alliance of cognitive labor and venture capital. Using technology itself, neoliberalism managed to subvert the social and political rapport de force between labor and capital. As far as we can see now, the result of neoliberal politics is a general reduction of labor cost and an impoverishment of the cognitarians. Both industrial labor, delocalized to the peripheral areas of the world, and cognitive labor, are devalued and underpaid, as precarization has fragmented and finally destroyed social solidarity. In this new context, defined by precarization of cognitive labor, we must rethink the question of subjectivation. Just after the financial collapse of spring 2000, the dot-com crash and the crumbling of big corporations like Enron and WorldCom, the Swiss philosopher and economist Christian Marazzi, a sharp analyst of the social implications of financial crises, wrote an article on the danger of privatizing the general intellect, in which he predicted the trend that ten years later is in full swing: the reduction of research financing, the manipulation and militarization of state-financed research, and the impoverishment and precarization of cognitive labor. If we look at the politics of the European neoliberal ruling class, we see that they are doing exactly this: in some countries (such as Italy) they are reducing the financing for school and for research, privatizing public schools, and provoking a large-scale de-scholarization that has already begun showing signs of producing widespread ignorance and fanaticism. In some countries (like France), they increasingly limit the public financing of research to that which can immediately translate into the politics of economic growth. Subjugating research to immediate economic interests reduces the role of research, rendering it a mere tool for governance, for the repetition of an existing framework of social activity. As cognitive workers are forced into precarity, they are also denied the possibility of deciding the scope of their own research. This obviously reduces the creativity invested by cognitarians in their work, as well as the pace of innovation and progress in technology. In the long run, this trend obliterates the progressive features of capitalism. As the cost of labor becomes so low that exploiting the physical force of a worker costs less than looking for some technological replacement, the push toward innovation slows to a halt. The interest in immediate profit prevails over the long-term development of productive force. Notwithstanding the shortsighted opinions prevailing in the field of neoliberal economics, a decrease in labor cost suggest that the progressive impulse of capitalism is fading; capitalism becomes a factor of de-civilization, of intellectual and technological regression. Cognitarians Searching for a Body Cognitarians are those who embody the general intellect in its many forms: they process information in order to give birth to goods and services. As the cognitive function of society is inscribed in the process of capital valorization, the infinitely fragmented mosaic of cognitive activity becomes a fluid process within a universal telematic network, redefining the shape of labor and capital. Capital becomes the generalized semiotic flux that runs through the veins of the global economy, while labor becomes the constant activation of the intelligence of countless semiotic agents linked to one another. Cognitarians are the social body of the soul at work in the sphere of semiocapital, but this body is dimidiated in a sphere isolated from the other’s body. The form of alienation that is spreading in the living sphere of the cognitarians is a form of psychic suffering that escapes the Freudian definition of neurosis. If Freud’s definition of neurosis lingered on repression of desire, semiocapital is pushing demand for consumerist hyper-expression: just do it. Panic, depression, and a de-activation of empathy—it is here that we find the cognitariat’s problem. Precarious cognitive workers are forced to think in terms of competition. You can become friends with another person on Facebook, but genuine friendship is difficult under conditions of virtual isolation and intense economic competition. If we want to find the way towards autonomous collective subjectivation we have to generate cognitarian awareness with regard to an erotic, social body of the general intellect. The way to autonomous and collective subjectivation starts here: from the general intellect searching for a body. Our main political task must be handled with the conceptual tools of psychotherapy, and the language of poetry—much more than the language of politics and the conceptual tools of modern political science. The political organizer of cognitarians must be able to do away with panic and depression, to speak in a way that sensibly enacts a paradigm shift, a resemiotization of the social field, a change in social expectations and self-perception. We are forced to acknowledge that we do have a body, a social and a physical body, a socioeconomic body. Cyber-optimists were fashionable in the ’90s, and they were able to interpret the spirit of an alliance between venture capitalists and artists or engineers. But the alliance was broken in the Bush years, when technology was submitted to the laws of war, and financial capitalism provoked a collapse that may still lead to the destruction of modern civilization. Today, cyber-optimism sounds fake, like advertising for a rotten product. In his recent book, You Are Not a Gadget, Jaron Lanier, the same person who engineered the tools of virtual reality, writes: true believers in the hive mind seem to think that no number of layers of abstraction in a financial system can dull the efficacy of the system. According to the new ideology, which is a blending of cyber-cloud and neo–Milton Friedman economics, the market will not only do its best, it will do better the less people understand it. I disagree. The financial crisis brought about by the U.S. mortgage meltdown of 2008 was a case of too many people believing in the cloud too much. Governance and Cognitive Subjugation In the present, agonizing phase of neoliberalism (an agony that is more ferocious and destructive than the previous phases) European governments are staging an assault on the educational system—and particularly on scientific research—as a part of a war against cognitive labor, a war aimed at its subjugation. The university system across Europe is based on a huge amount of precarious, underpaid, or unpaid labor. Researchers and students have staged protests against this trend, attempting to return the educational system to its original vocation: a place of non-dogmatic knowledge, of the public sharing of culture. Research should not be subjected to any restraining criterion of functionality, because its very function is to explore solutions that, although dysfunctional in the present paradigm, may reveal new paradigmatic landscapes. This is the role of scientific research, especially when we are facing conundrums that seem unresolvable within the capitalist paradigm. The European ruling class aims to reduce research to a method for the governance of complexity. The ideology of governance is based on the naturalization (hypostatization, I would say in Hegelian parlance) of economic reasoning. The economy has achieved the status of a universal language, of the ultimate standard of choice, whereas economics should be just a branch of knowledge among others. The normative role that the economy has acquired is unwarranted from an epistemological point of view, and devastating at the social level. If research is subjected to economic conceptualization, it is no longer research, but technical management. The so-called reform of the European educational system launched in 1999 (the year of the Bologna Charter) is aimed at the separation of applied research from the questioning of the very foundations and finalities of scientific knowledge, accompanied by the subjugation of research to standards set by economic evaluation. The epistemic implications of this move are enormous: to submit research to the laws of economic growth obliterates the most important purpose of knowledge, what Thomas Kuhn calls its “paradigmatic” function. The ability to produce paradigm shifts in the field of knowledge and in the field of experimentation depends on the autonomy of research from established standards of evaluation. Only when research can work and discover and create concepts regardless of established social interests can knowledge move beyond repetition, and open new prospects to imagination and technology. “Governance” is the keyword for this process. Governance produces pure functionality without meaning, the automation of thought and of will. It embeds abstract connections in the relation between living organisms, technologically subjecting choices to logical concatenation. It recombines compatible (compatibilized) fragments of knowledge. Governance is the replacement of political will with a system of automatic technicalities forcing reality into a logical framework that cannot be questioned. Financial stability, competitiveness, labor cost reduction, increase of productivity: the systemic architecture of EU rule is based on such dogmatic foundations that cannot be challenged or discussed, because they are embedded in the technical function of managerial subsystems. No enunciation or action is operational if it does not comply with embedded rules of techno-linguistic dispositifs of daily exchange. Governance is the management of a system that is too complex to be governed. The word “government” means the understanding (as a reduction to a rational model) of the social world, and the ability of the human will (despotic, democratic, and so forth) to control a flow of information sufficient for the control of a relevant part of the social whole. The possibility of government requires a low degree of complexity with regard to social information. Information complexity grew throughout the late modern age, and exploded in the age of the digital network. Therefore, the reduction of social information to comprehensive knowledge and political control becomes an impossible task: control becomes aleatory, uncertain, almost impossible, and an increasing number of events escape the organized will. At this point, capitalism shifts to the mode of governance. It employs abstract concatenation of technological functions in place of the conscious processing of a flow of information. It connects asignifying segments in place of dialogic elaboration. It automatically adapts in place of forming consensus, using technical language in place of shared meaning resulting from dialogue and conflict. In place of planning, it manages disruption. It assesses the compatibility of agents entering the social game in place of mediating conflicting political interests and projects. And it employs the rhetoric of systemic complexity in place of a rhetoric of historical dialectics. Looking for Autonomy As the governance model functions perfectly, in itself, it destroys the social body. Conceptualizing the field of cybernetics, Norbert Wiener argued that a system exhibiting positive feedback, in response to perturbation, increases the magnitude of perturbation. In contrast, a system that responds to a perturbation in a way that reduces its effect is said to exhibit negative feedback. A logic of positive feedback is installed in the connection between digital technology and financial economy, because this connection tends to induce technological automatisms, and psycho-automatisms too, leading to the advancement of destructive tendencies. Look at the discourse of the European political class (almost without exception): If deregulation produced the systemic collapse with which the global economy is now confronted, we need more deregulation. If lower taxation on high incomes led to a fall in demand, let’s lower high-income taxation. If hyper-exploitation resulted in the overproduction of unsold and useless cars, let’s intensify car production. Are these people insane? I don’t think so. I think they are incapable of thinking in terms of the future; they are panicking, terrorized by their own impotence; they are scared. The modern bourgeoisie was a strongly territorialized class, linked to material assets; it could not exist without a relationship to territory and community. The financial class that dominates the contemporary scene has no attachment to either territory or material production, because its power and wealth are founded on the perfect abstraction of a digitally multiplied finance. And this digital-financial hyper-abstraction is liquidating the living body of the planet, and the social body. Only the social force of the general intellect can reset the machine and initiate a paradigm shift, but this presupposes the autonomy of the general intellect, the social solidarity of cognitarians. It presupposes a process of autonomous subjectivation of collective intelligence.

#### Balance between intellectual rights and freedom only reinforces colonial domination through stricter implementation mechanisms and further legitimizes globalization.

Ferrer, Cory. “The Rhetoric of ‘Balance’: Neo-Colonialism and Resistance in the Global Battle for Generic Drugs - ProQuest.” Proquest.com, 2019, www.proquest.com/openview/5cbb5aa35aec157b3cdf8b03d5d269b7/1?pq-origsite=gscholar&cbl=18750&diss=y. |Harun|

‌Conclusion: What does “Balance” Do? In the context of the Doha round of negotiations, we see “balance” invoked towards several different ends. The TRIPS agreement invokes “balance” as a form of strategic ambiguity, attempting to please multiple stakeholders by allowing competing interpretations of the same international law to clear the procedural hurdles of consensus. The WTO officers and the EU’s position paper invoked “balance” to build legitimacy for the TRIPS agreement, the deliberative process that produced it, and by extension, the global patent system itself. If the TRIPS agreement strikes a carefully negotiated balance between health and IP protection, then the current balance is presumed sufficient. The paper submitted by the US and its allies invoked “balance” only as a description of strong and effective IP enforcement, a passing nod to balance that ultimately served to build the moral credibility of their strong IP enforcement agenda. For the coalition of the Global South, balance means mutual advantage, but one that must be demonstrated. Their position did not presume the benefit of IP to public health outcomes and argued that when IP protection conflicted with public health outcomes, governments have a standing right to choose public health. Balance is therefore a deeply contested signifier: both a site of neo-colonial domination, and a site of counter-colonial resistance. However, all these conceptions of balance have one thing in common. They all, in some way, reinforce the legitimacy of the TRIPS agreement and the WTO as a governing institution of the global economy. Though the DCGP openly challenged Western Hegemony of these forums, it did so by drawing on specific provisions of the TRIPS agreement and claiming a position as an authoritative interpreter of international law to which Western nations are (on paper) equally beholden. Instead of challenging the legitimacy of the WTO and TRIPS agreements, the governments of the Global South are claiming that legitimacy for themselves in a counter-colonial push to assert themselves as equal governors and rightsholder of the neo-liberal world order. Though “balance” is typically invoked as a resolution to conflict, it is in fact the very site of that conflict it’s supposed to resolve.

#### Current securitization against biological warfare uses the 1AC’s call for an expansion of medicine as fuel to expand a tool of biopolitical control that ensures a shift from “national security” to “human security” which makes their impact inevitable, all while forwarding Western colonialism under the guise of relief efforts.

Thacker, Eugene. “The global genome - biotechnology, politics, and culture.” (2005). |Harun + Sosa|

In addition, it is important to recognize that the rise of biowar does not mean that nuclear arms are now simply out of fashion, just as the demonstration of “infowar” during the Kosovo crisis did not mean that all war simply became “virtual.” If anything, the narratives of scientific and technological progress told by the United States create a picture of a military-industrial (and military-medical) complex that multiplies its forces and proliferates its means of security. Nuclear arms races, biological warfare, chemical warfare, infowar, and good old-fashioned air, sea, and ground combat are all at the disposal of these military superpowers. Thus, in thinking about biowar generally, we might do better to think about concurrent but historically differentiated levels of conflict that proceed through the knowledge and know-how of biology. Thus, we can outline several “layers” or “levels” of biowar, all of which are present to varying degrees in any event or identified threat. First Level: Biological Sabotage Accounts of early examples of biological warfare in antiquity already outline three main components of biowar: the use of substances that make the body ill, the sabotage of food and water resources, and attempts to create “modern” biological weapons.15 Examples include forms of sabotage of food, water, or animals among the Greeks.16 The use of poisons directly or indirectly (“weapons” composed of venomous snakes or scorpions) was not uncommon in Greek and Roman warfare. Examples of the second kind are found in Thucydides’ account of possible pollution of wells during the Peloponnesian War.17 In his account of the outbreak of plague in Attica following the invasion of the Peloponnesian army, Thucydides notes the patterns of infection and the disastrous political effect that the plague had in the battle: “Athens owed to the plague the beginnings of a state of unprecedented lawlessness.”18 Although Thucydides’ account concerning pollution of food and water is conjecture, what is relevant is that he consciously juxtaposes war and epidemic, as if the two become naturally coexisting phenomena (in this case, the latter determining the former). The development of perhaps the first “modern” biological weapons is found during the first outbreak of the Black Death during the Middle Ages.19 The adjective modern is in quotes because, although the Black Death did not result in a formalized, scientific knowledge of infectious disease, it did demonstrate a moment in which war was consciously thought of in terms of biological death. As is known, the Black Death first spread throughout Europe between 1347 and 1351, by some estimates destroying nearly half of Europe’s population. Trade routes, trading posts and towns, religious conflict, and the use of military organizations in facilitating trade are known to have had a significant effect in the transmission of the plague. One event is of particular note, and it is thought to have occurred around the early part of 1346. Historical records are lacking for this Bioinfowar: Biologically Enhancing National Security 217 often-mythologized event, except for one Italian chronicler, Gabriele de Mussis, a lawyer from Piacenza, whose Historia de Morbo remains one of the important accounts of the early stages of the Black Death.20 According to de Mussis, in September 1345 the Black Death crossed into European territory. How did this happen? At an Italian trading settlement in Caffa, on the northern coast of the Black Sea, a skirmish broke out between the Italian Christian merchants and local Muslims. The skirmish escalated into a gang war, involving a small Tartar army and military exchanges from both sides. The Tartar army attempted to siege Caffa but was hit with the Black Death, which had then been spreading throughout the Mongol region. Before retreating, the Tartar commander ordered troops to take soldiers’ diseased corpses and catapult them over the walls of Caffa, where the Christian armies were entrenched. Days later the Black Death was reported in Caffa, and by 1351 it had traveled through Asia Minor, Greece, Egypt, Libya, Syria, and southern Europe.21 Historians continue to debate the accuracy of the events at Caffa and the degree to which it may be exaggerated. Even if exaggerated, the case of the Black Death is interesting for several reasons. First, it very literally demonstrates the weaponizing of the body, in which biology becomes both weapon and target, a propagator of disease and death. But more than this, the siege at Caffa demonstrates something that is at the core of biowar: the application of knowledge in the service of war. The very idea that a diseased cadaver could have biological and strategic effects beyond its own lifelessness is itself a significant moment in biowar thinking. In fact, even in contemporary contexts, the concurrence of disease and war is striking (bioterrorist threats alongside new infectious diseases such as SARS), and the events at the siege of Caffa illustrate the basic strategy of biowar: that, metaphors aside, disease is war. These early examples of biowar place an emphasis on the uses of disease or toxins to affect an enemy or target indirectly; they did not yet include direct militaristic methods of attack, and certainly did not yet have access to the new technologies of genetic engineering. They made a rudimentary and fairly uncontrolled use of disease and toxins, most often as a means of sabotage. In contrast, the controlled sabotage of food and water systems is a top concern for the U.S. FDA, whose responsibility within the 2002 Bioterrorist Act is to monitor and prepare for possible terrorist attacks in the food and water supply.22 Unlike direct combat, sabotage occurs invisibly and in secret; its effects are often not immediately felt or are noticed only after a delay. Biological saboChapter 6 218 tage operates in this indirect manner, even more indirectly than the dispersal of a biological agent. Infection happens not directly through the air or blood, but through the metabolic process of food and water—the very substances that maintain the body. In addition, in our contemporary context, the preparation, distribution, and processing of food constitutes a complex network of farms, slaughterhouses, train cargo, food handlers, and so on, which can make the backtracking of sabotage a difficult task. It is for these reasons that biological sabotage continues to be one of the primary concerns in terrorist preparedness programs in the United States. Indeed, in 1984 an attack such as this was carried out on a small scale within the United States. Followers of the Bagwan Shree Rajneesh cult living in Oregon contaminated salad bars in several restaurants with salmonella.23 In an effort to thwart a local election, cult leaders had intended this act as a precursor to a more extensive act of sabotage that would be carried out at a later date. More than 700 cases of food poisoning were reported, some of which required hospitalization. In addition, early-twenty-first-century scares over the nonterrorist outbreaks of mad cow disease, bird flu, and monkey pox have further heightened fears about the possibility of a terrorist attack through biological sabotage.24 Second Level: Biological Weapons Biological sabotage was made “more scientific” through the application of microbiology and germ theory during World War I. The antiplant and antianimal campaigns carried out in the two world wars are an important aspect of biowar, for they not only demonstrate the systematic application of the life sciences to war, but also show an awareness of the network properties of infectious agents, be they in food, water, or distribution systems.25 This second level of biological weapons extends from the scientifically driven sabotages of World War I to the emergence of recombinant DNA, genetic engineering, and a biotech industry during the 1970s. Here, a scientific knowledge of disease and lethal biological agents is more closely fused with contemporary tactics and strategies of war (including the chemical bomb or nerve gas bomb). The most common approaches were mobilizing pathogenic agents toward targeted areas, biological resources, and both the military and civilian populations.26 A greater effort is made on this level to control the biological weapon and its desired impact (its target area, carriers, lethal rate and dose, infected perimeter, modes of protecting soldiers). Bioinfowar: Biologically Enhancing National Security 219 During 1915 and 1916, the German army initiated a number of antiplant and antianimal biological warfare campaigns against Allied forces.27 The primary agents developed were anthrax and glanders, and the primary targets were grain stocks and livestock such as horses and cows. Pathogens were cultured in the lab, then distributed by German operatives within the United States to various distribution points, in which horses and other livestock would be injected with infected needles. In addition, some evidence also exists that the French also had an antianimal biological warfare program during the war.28 Though by most estimates the effects of these attacks were minimal, the alarm they caused, along with the specter of chemical weapons, led to the 1925 Geneva Protocol, which was, in effect, a “no-first-use” agreement between the signatory nations.29 However, although the Geneva Protocol prohibited the use of chemical and bacteriological weapons, it did not prevent the further research, development, and weaponizing of biological weapons. This major weakness in the agreement left the door open to a number of offensive biological warfare programs, including those in the United States, Japan, Germany, France, Great Britain, and the Soviet Union. One of the most harrowing examples of offensive biological warfare programs involves the Japanese experiments on Chinese prisoners during World War II. Known by the name Unit 731, this top-secret program began in 1936 in occupied Manchuria, under the leadership of Ishii Shiro.30 Over the next four years, the respected scientists and physicians of Unit 731 would intentionally infect Chinese prisoners with a range of diseases, including anthrax, cholera, and bubonic plague. Other experiments involved the use of biological sabotage, bacteriological bombs, and insect disease vectors on the unsuspecting civilians of local Chinese towns. Historians estimate that some 10,000 people were killed as a direct result of Unit 731’s experiments. As the war came to an end, Unit 731 members came into U.S. hands. The U.S. government brokered a deal with the Unit 731 members, granting them immunity from war crimes prosecution in exchange for the knowledge they had gained from their experiments.31 Following World War II, the awareness of the extent of Unit 731’s program led a number of leading nations, including the United States, the Soviet Union, and Great Britain, to more aggressive research into offensive biological warfare. Much of this research centered around field tests, either in populated, civilian areas with nonlethal forms of a biological agent or in Chapter 6 220 unpopulated areas with lethal agents and animal subjects.32 In 1942 and 1943, the British government tested an anthrax bomb (N-bomb) on Gruinard Island off the coast of Scotland.33 The most extensive of these activities was that of the U.S. biological warfare program, initiated in 1942 by the War Research Service.34 Between 1949 and 1969, field tests led by the Committee on Biological Warfare in the Defense Department were conducted in more than 200 populated areas within the United States, totally unknown to the civilians who lived in those areas. Examples of such field tests include a 1950 Serratia marcescens and Bacillus globigii test off the shore of San Francisco; a 1951 Aspergillosis test at a shipping center in Virginia; a 1955 test of Hemophilus pertussis in the Gulf Coast of Florida; as well as urban field tests in Minneapolis (1953), St. Louis (1953), and New York City (1966).35 In the examples of Unit 731 and the field tests conducted in the United States, we see a noticeable shift away from an ad hoc, tentative deployment of biological sabotage (in World War I) to the development of specifically funded, government-mandated research programs. In addition, in the case of the U.S. program and a bit later in the Soviet germ warfare program, we also see the use of the civilian population as a kind of testing ground for the theoretical effectiveness of bioweapons. This level of biowar might be said to close with the BWC, which was signed by the United Kingdom, the Soviet Union, Japan, and many other countries in 1972 and was ratified by the United States in 1975. Numerous reviews, policy modifications, and suggestions have been made to the original BWC since its inception date, including more stringent methods of verification. To this day, an agreed upon, workable protocol for biological weapons monitoring and verification remains one of the central weak points of the BWC.36 Third Level: Genetic Warfare Whereas the biowar programs of the previous level were dedicated primarily to the analysis and experimental use of already existing biological agents, another level—that of genetic warfare—takes a further step into the possibility of engineering and designing novel biological weapons. The controversy over the Soviet germ warfare program is but one example. A 1979 outbreak of anthrax in the city of Sverdlovsk resulted in the death of approximately 70 civilians and the illness of many more.37 It was not until 1992 that inspectors were allowed to visit the city, but their visit was presaged by the Bioinfowar: Biologically Enhancing National Security 221 defection of a number of Soviet scientists such as Ken Alibek, who publicly testified to his and other scientists’ government research into a genetically altered “superplague.” Thus, this layer of genetic warfare is dominated by the recent advances in molecular genetics and biotechnology, in examples such as the HGP and the HGDP. This level involves the use of techniques in genetic engineering, gene therapy, medical genetics, and genomics to design, for the first time, biological weapons that may be able to target specific regions, ethnic groups, populations, or biological resources. One hypothetical example is the use of the information from human genome projects and the HGDP, to develop novel pathogens to target ethnic groups, which would use a gene therapy–based carrier.38 However, the concept of engineering biological weapons has to be understood also in light of the history of eugenics in the United States and Germany. Modern eugenics follows upon the work of Francis Galton, who in the 1880s coined the term and had proposed applying Darwinian principles of artificial selection to human beings. Galton’s eugenics took hold in a United States grappling with mass immigration, population growth, rising urban poverty, and a looming economic depression. The idea that science could be used to prevent social degeneration was formalized in a number of institutions, primary among them the Eugenics Record Office, founded and run by Charles Davenport, a respected biology professor at the University of Chicago.39 The Eugenics Record Office generated an immense amount of survey data, including studies of “feeblemindedness.” Such studies feed into the perceived social need to exercise a “negative eugenics,” or a set of restraints on population growth and reproduction, in order to prevent a range of ills—from criminality to “imbecility”—from spreading across the United States generally.40 By the late 1920s, nearly half of the states had passed eugenic sterilization laws. In the 1927 case Buck v. Bell, the Supreme Court ruled that such laws were constitutional, Justice Oliver Wendell Holmes punctuating the decision by noting that “three generations of imbeciles were enough.” American eugenic legislation paved the way for the German programs, that began in the early 1920s. In 1923, the Kaiser Wilhelm Institute for Research in Psychiatry established a chair for race hygiene. Other institutes would follow suit, including the Institute for Anthropology, Human Heredity, and Eugenics and the Society for Racial Hygiene, also in Germany, as well as the Galton Laboratory for National Eugenics in London, headed by population Chapter 6 222 biologist Karl Pearson. Eugenics in Germany took up many of the Americans’ racial policies.41 Together, the American and German movements helped to introduce Mendelian heredity (then recently rediscovered by biologists) into the field of eugenics and social policy. Involuntary sterilization laws led to thousands of sterilized individuals in the United States, not to mention the extremes to which the eugenics movement would go in the Nazi regime. In 1933, Hitler decreed the Heredity Health Law, directly inspired by eugenics. At the same time, U.S. societies, such as the Genetics Society of America debated about whether or not to condemn the Nazi policies. According to some accounts, they were never able to reach a decision on the topic; in addition, following the war, many Nazi scientists and physicians were never prosecuted and in fact returned to university posts within Germany. As Daniel Kevles notes, there is a strong continuity between the American eugenics movement and the emergence of modern genetics in the 1940s and 1950s in the United States and Great Britain.42 Following the atrocities to which the Nazi program led, so-called reform eugenicists such as Ronald Fisher and J. B. S. Haldane aimed to bring a more scientific view to eugenics study, purged of its racism and doctrine of racial hygiene. To do so, molecular biologists began focusing on early techniques in genetic mapping and linkage analysis. One result was a wave of innovations in the use of this more “scientific” eugenics in the diagnosis and prognosis of a range of illnesses. This emphasis on the medical aspect of genetics—without the rhetoric of social degeneration—led the way to the late-twentieth-century emphasis on genetic testing and hereditary study of the transmission of disease. Although quite different from the negative eugenics of the early part of the century, this “new eugenics” was instead characterized by a consumer model for health care, hightech testing, and an emphasis on prevention.43 The context of eugenics helps to frame this layer of genetic warfare, in which largely defensive measures are taken to protect either the military body of the soldier or the social body of a population. The level of genetic warfare is both preventive and preemptive at the same time. Several real-world examples give further credence to this third level: first, the Gulf War demonstrated that biological warfare was continuing to make its way steadily into the standard armament of modern war, as revealed by Gulf War Syndrome and the experimental vaccines given to soldiers prior to battle.44 Second, examples of intranational genocide—in Cambodia, Yugoslavia, and Rwanda—suggest that the possibility of targeting ethnic groups through genetics could offer a Bioinfowar: Biologically Enhancing National Security 223 potentially powerful tool in the hands of regimes bent on ethnic cleansing or racial war. Fourth Level: Biocolonial Mission A more directed use of biowar as a tool of ethnic and political conflict occurred during the eighteenth century, in which we find documented instances of biowar used within a colonial context. One example is British Soldiers’ intentional use of smallpox to infect Native American tribes. In 1763, Jeffery Amherst, the British commander in chief in North America, gave an order for the presentation of smallpox-infected blankets to Native American tribes in the Delaware region.45 The blankets were to be taken from infected patients in the infirmary and given to the Indians as a peacemaking gesture. As General Amherst emphasized, the aim was “to try every other method that can serve to extirpate this execrable race.”46 It can be argued that colonialism is unthinkable without medicine. Without an ability to ensure the health of a colonial army or the health of colonizing populations, the colonial project is compromised from the start. As David Arnold notes in his analysis of British colonial medicine in India, there is “a sense in which all modern medicine is engaged in a colonizing process.”47 Yet, as Arnold points out, this notion of “medicine in the service of empire” is also two sided. On the one hand, there are instances in which the spread of a disease has worked to the advantage of the colonizer or explorer. On the other hand, there are also instances in which disease—“native disease”—has served to obstruct the colonialist or expansionist enterprise.48 Malaria, yellow fever, sleeping sickness, and a host of other “native diseases” often served to impede European expansionism as much as other illnesses indirectly furthered its cause. As medical historian Roy Porter notes, “without disease, European intruders would not have met with such success or found indigenes so feeble in their resistance. Yet endemic diseases also held back European expansion into Africa.”49 Recent efforts to provide assistance in the fight against AIDS in Africa— most notably by the Gates Foundation as well as by the U.S. government— is undoubtedly a positive sign of an awareness of global health issues.50 But it is also important to assess how such financial aid is spent and whether financing alone is enough in a situation where education, communication, and the complexities of the physician-patient relationship are still primary issues. Furthermore, it is also important to ask whether the global health-care industry or the pharmaceutical industry stands to gain from such relief efforts. Although it is clear that AIDS and malaria in countries such as Africa do constitute serious health crises, it is also important to recall the tangled history of colonialism and medicine, as well as the often one-sided narrative of British “medical missionaries” in India and Africa during the nineteenth century.51 Today the logic of this level of biocolonial war is, strictly speaking, not war at all, but rather the establishment of a naturalized, permanent link between “developed nations” and a Western health-care paradigm based on costly prescription drugs. Although such treatments are often quite effective and life saving, their benefits are always abetted by what Frantz Fanon describes as a structure of indebtedness.52 A number of pharmaceutical companies have noted the potential market for generics in developing nations, and controversies still ensue over the corporate patenting of genetic material and cell lines from diverse regions around the world. A multifactorial health-care approach—including environment, diet, cultural context, poverty, education, and drugs—is clearly what such health crises demand. Of course, the limit of this biocolonial level is when it is turned inward, within the United States itself. This is what Paul Virilio and Sylvère Lotringer call “endocolonization,” in which the social body is invaded internally through genetic screening, in vitro fertilization, medical prostheses, and so forth.53 If it is true that the newest biotechnologies will be field tested in the United States—DNA chips, tissue engineered skin or organs, stem cell therapies— then this testing will be preceded by efforts by the “medical missionaries” of the biotech industry to establish biotechnology as safe, desirable, beneficial, and, above all, natural. Fifth Level: Bioinfowar Thus far I have covered four levels, each existing simultaneously, but to varying degrees depending on historical, social, and political context: a first level of biological sabotage, a second level of biological weapons, a third level of genetic warfare, and a fourth level of biocolonial mission. A fifth and final level is that represented by the integration of molecular genetics and computer science in the biotech industry: bioinfowar. Bioinfowar is not yet a reality, but it is, arguably, quickly becoming one. It includes what has for some time been the practice of “infowar,” or the military conflict played out on the level of computer codes, databases, Internet Bioinfowar: Biologically Enhancing National Security 225 servers, electronic wiretapping, computer viruses, firewalls, and physical communications infrastructures.54 The development of infowar does not occur as a technological feat, but takes place in the development of military use of information technologies, most explicitly demonstrated in the Gulf War and the Kosovo conflict. Recent discussions on the intersections of war, global politics, and technology have raised the issue of how the increasing importance of computer and information technologies have transformed the field of combat into a logistical, screenal Sega System (or PS2).55 This entrance of both spectaclebased technologies (media-based infowar) and information technologies (communications and hacking) into the domain of war has meant, in part, that the enemy ceases to be a body or mass of bodies, but rather coordinates among other coordinates on a pixel plane. These “wars which did not happen,” as Jean Baudrillard states, show two fundamental changes occurring in postmodern war. First, the physical encounter of hand-to-hand combat is increasingly being replaced by the mediated encounter of vision machines. The model here is Orson Scott Card’s novel Ender’s Game, in which a young video game wiz unsuspectingly becomes the futuristic military’s top combat pilot. Second, war is increasingly coming to be seen as so much more than actual battlefield combat; during every modern war, there are several other levels of combat: media war, encryption and decryption, finances, the business of production for war, the opportunities for revitalizing nationalism, the dark opportunities for genocide and ethnic cleansing, and the use of new media such as networks, computers, and databases of automated war machines. At the most extreme end of this war business, we enter a condition that Paul Virilio and Sylvère Lotringer call “pure war,” or the situation of infinite preparedness for an always deferred war. 56 Juxtapose this scenario of infowar with current developments in biotechnology: the automation of genome sequencing, the rise of bioinformatics and gene discovery software, DNA microarrays and microfluidic “labs on a chip,” data mining software, DNA encryption, and other developments show that biotech is becoming thoroughly computerized, and that the biotech patient of the future will be less an anatomical, individuated body than a computerized profile of gene patterns and statistical predispositions analyzed by bioinformatic expert systems. Yet, for all this, biotechnology remains resolutely material in the drugs, therapies, and diagnostics that regularly rub up against the patient’s body. Chapter 6 226 Biotechnology currently plays a number of roles in biological warfare. One recent area of application has been in portable hazardous bioagent detection systems. Nanogen, for example, has a hand-held biochip device for the detection of aerosolized agents such as anthrax. Another area is in the use of genetic engineering for the design of vaccines to potential pathogens such as anthrax, ricin, or smallpox. As noted previously, the U.S. Project BioShield has as one of its priorities the development of “next-generation medical countermeasures”—that is, new drugs produced by the American-based global pharmaceutical industry. Finally, a third area of application has been in medical surveillance systems for the monitoring of potential outbreaks of a naturally occurring or terrorist type. The WHO and the CDC have such networks currently in place.57 What would a merger between infowar and the new computerzied biotech look like? Is the answer here nanotechnology? The use of nanomedical particle systems? The use of robotic drones to disperse engineered pathogens to ethnically targeted regions and populations? Will we see the horrific hybrid of the biological suicide bomber? Bioinfowar seems at once less material than the catapulting of diseased cadavers and more material than the targeted military release of computer viruses on an enemy subnetwork. To recap: a history of biowar cannot be told from one perspective, be it technological development, scientific progress, or the culture of fear and paranoia. A critical account of biowar would have to take into account the social and political dynamics that enframe the transition from military application to civilian use. In the case of biowar, we can see (at least) five coexistent levels at play in any given event, each of which raises fundamental issues concerning the way in which biological “life itself” is instrumentalized in political, military, and ideological conflict. Targeting the Body In any consideration of these different but coexisting levels of biowar, it is important to note also how the concept and the practice of biowar has historically changed. We might ask: How does biowar “target” the body? In biowar, biology is both the weapon and the target, a form of “life itself” that targets “death itself” through the use of a range of pathogens, epidemic infections, and, in some cases, engineered life forms. Bioinfowar: Biologically Enhancing National Security 227 As discussed in other chapters in this book, one key historical transition in the concept of “life itself” involved a “taking charge of life, more than the threat of death” in the development of a wide range of medicopolitical practices during the eighteenth and nineteenth centuries: the application of statistics and demographics to account for the “health” of populations, the attempts to reform hospitals in terms of management and infections, urban hygiene programs, the establishment of professional societies dedicated to maintaining and monitoring health standards for a population, and the notion of a “medical police” or a managerial apparatus for ensuring the health of the body politic. Michel Foucault refers to such practices as a form of “biopolitics,” a form of power in which the health of the population is also the health of the nation, and vice versa. In these and other instances, “biological existence was reflected in political existence,” and the medical often dovetailed into the governmental.58 Biopolitics “tends to treat the ‘population’ as a mass of living and coexisting beings who present particular biological and pathological traits and who thus come under specific knowledge and technologies.”59 At the center of biopolitics is a concern over the “population,” defined in terms that are both biological and informatic—an attempt “to rationalize the problems presented to governmental practice by the phenomena characteristic of a group of living human beings constituted as a population: health, sanitation, birthrate, longevity, race.”

#### The alternative is to engage in a schizoanalytic framework in response to the affirmative’s call for global economic interdependency.

Berardi 17, Franco "Bifo.". Soul At Work. AAKAR Books, 2017 |harun|

The political and economic knowledge we have inherited from modern rationalist philosophy is now useless, because the current collapse is the effect of the infinite complexity of immaterial pro-duction and of the incompatibility or unfitness of the general intellect when confronted with the framework of capitalist governance and private property. Chaos (i.e. a degree of complexity which is beyond the ability of human understanding) now rules the world. Chaos means a reality which is WO complex to be reduced to our current paradigms of understanding. The capitalist paradigm can no longer be the uni-versal rule of human activity. We should not look at the current recession only from an eco-nomic point of view. We must see it as an anthropological turning point that is going to change the distribution of world resources and of world power. The model based on growth has been deeply interiorized, since it pervaded daily life, perception, needs, and consumption styles. But growth is over and will never be back, not only because people will never be able to pay for the debt accumulated during the past three decades, but also because the physical planetary resources are close to exhaustion and the social brain is on the verge of collapse. Catastrophe and morphogenesis The process underway cannot be defined as a crisis. Crisis means the destructuration and restructuration of an organism which is nonetheless able to keep its functional structure. I don't think that we will see any re-adjustment of the capitalist global structure. We have entered a major process of catastrophic morphogenesis. The capitalist paradigm, based on the connection between revenue and work performance is unable to frame (semiotically and socially) the present configuration of the general intellect. In the 1930s the opportunity for a New Deal rested on the availability of physical resources and in the possibility of increasing individual demand and consumption. All that is over. The planet is running out of natural resources and the world is heading towards an environmental catastrophe. The present economic downturn and the fall in oil prices ate feeding the depletion and exhaustion of planetary resources. At the same time, we cannot predict any boom in individual consumption, at least in the Western societies. So it is simply non- sensical to expect an end to this crisis, or a new policy of full employment. There will be no full employment in the future. The crash in the global economy is not only an effect of the bursting of the financial bubble. It is also and primarily an effect of me bursting of the work bubble. We have been working too much during the last five centuries, this is the simple truth. Working so much has implied an abandonment of vital social functions and a commodification of language, affections, teaching, therapy and self-cate. Society does not need more work, more jobs, more competition. On the contrary: we need a massive reduction in work-time, a prodigious liberation of life from the social factory, in order to reweave the fabric of the social relation. Ending the connection between work and revenue will enable a huge release of energy for social tasks that can no longer be conceived as a part of the economy and should once again become forms of life. As demand shrinks and factories close, people suffer from a lack of money and cannot buy what is needed for everyday life. This is a vicious circle that the economists know very well but are completely unable to break, because it is the double bind that the economy is doomed to feed. The double bind of over-production cannot be solved by economic means, but only by an anthropological shift, by the abandonment of the economic framework of income in exchange for work. We have simultaneously an excess of value and a shrinking of demand. A redistribution of wealth is urgendy needed. The idea that income should be the reward for a performance is a dogma we must absolutely get rid of. Every person has the right to receive the amount of money that is needed for survival. And work has nothing to do with this. Wages are not a natural given, but the product of a specific cultural modeling of the social sphere: linking survival and subordination to the process of exploitation was a necessity of capitalist growth. Now we need to allow people to release their knowledge, intelligence, affects. This is today's wealth, not compulsive useless labour. Until the majority of mankind is free from the connection between income and work, misery and war will be the norm of the social relationship. How to heal a depression? Although they seldom, if ever, used the "D" word, Felix Guattati and Gilles Deleuze say very interesting things on the subject in their last books, Chaosmosis, and What is philosophy.' In the final chapter of What is philosophy? they speak of Chaos. Chaos, in their woods, has very much to do with the acceleration of the semiosphere and the thickening of the info-crust. The acceleration of the surround-ing world of signs, symbols and info-stimulation is producing panic, as I have already said in the previous parts of this book. Depression is the deactivation of desire after a panicked acceleration. When you are no longer able to understand the flow of information stimulating your brain, you tend to desert the field of communication, disabling any intellectual and psychological response. Let's go back to a quote that we have already used: "Nothing is more distressing than a thought that escapes itself, than ideas that fly off, that disappear hardly formed, already eroded by forgetfulness or precipitated into others that we no longer master. », We should not see depression as a mere pathology, but also as a form of knowledge. James Hillman says that depression is a condition in which the mind faces the knowledge of impermanence and death. Suffering, imperfection, seniliry, decomposition: this is the truth that you can see from a depressive point of view. In the introduction to What is philosophy? Ddeuze and Guattari speak of friendship. They suggest that friendship is the way to overcome depression, because friendship means sharing a sense, sharing a view and a common rhythm: a common reftain (ritournelle) in Guattari's parlance. In Chaosmosis Guattari speaks of the "heterogenetic comprehension of subjectivity" : "Daniel Stern, in The Interpersonal World of the Infant, has notably explored the pre-verbal subjective formations of infants. He shows that there are not at all a matter of 'stages' in the Freudian sense, but of levels of subjectivation which maintain themselves in parallel through life. He thus rejects the overrated psychogenesis of Freudian complexes, which have been presented as the structural 'Universals' of subjectivity. Furthermore he emphasizes the inhetently trans-subjective character of an infant's early experiences:J2 The singularity of psychogenesis is central in Guattari's schizoanalytic vision. This implies also the singularity of the therapeutic process. it's not simply a matter of remodeling a patient's subjectivity—as it existed before a psychotic crisis—but of a production sui genesis... these complexes actually offer people diverse possibilities for recomposing their existential corporeality, to get WI of their repetitive impasses and, in a certain way to resin-gularize themselves." These few lines must be read, in my opinion, not only as a psychotherapeutic manifesto but also as a political one. The goal of schizoanalysis is not, in Guattari's words, to reinstall the universal norm in the patient's behavior, but to singularize him/her, to help him/her becoming conscious of his or her differ-ence, to give him/her the ability to be in good stead with his being different and his actual possibilities. When dealing with a depression the problem is not to bring the depressed person back to normality, to reintegrate behavior in the universal standards of normal social language. The goal is to change the focus of his/her depressive attention, to re-focalize, to deterrito-rialize the mind and the expressive flow. Depression is based on the hardening of one's existential refrain, on its obsessive repetition. The depressed person is unable to go out, to leave the repetitive refrain and s/he keeps going back into the labyrinth. The goal of the schizoanalyst is to give him/her the possibility of seeing other landscapes, to change focus, to open new paths of imagination. I see a similarity between this schizoanalytic wisdom and the Kuhnian concept of paradigmatic shift which needs to occur when scientific knowledge is taken inside a conundrum. In The Structure of Scientific Revolutions (1962) Kuhn defines a paradigm as "a con-stellation of belies shared by a group of people." A paradigm may therefore be seen as a model which gives way to the understanding of a certain set of realities. A scientific revolution in Kuhn's vision is the creation of a new model which fits the changing reality better than the previous epistemic models. The word aepisteme" in the Greek language means to stand in front of something: the epistemic paradigm is a model that allows us to face reality. A paradigm is a bridge which gives friends the ability to traverse the abyss of non-being. Overcoming depression implies some simple steps: the deterrito-rialization of the obsessive refrain, the re-focalization and change of the landscape of desire, but also the creation of a new constellation of shared beliefs, the common perception of a new psychological environment and the construction of a new model of relationship. Deleuze and Guactari say that philosophy is the discipline that involves creating concepts. In the same way, they argue that schizo-analysis is the discipline that involves creating percepts and affects through the deterritorialization of obsessive frameworks In the current situation, the schizoanalytic method should be applied as political therapy: the Bipolar Economy is falling into a deep depression. What happened during the first decade of the cen-tury can be described in psychopathological terms, in terms of panic and depression. Panic happens when things start swirling around too quickly, when we can no longer grasp their meaning, their eco-nomic value in the competitive world of capitalist exchange. Panic happens when the speed and complexity of the surrounding flow of information exceed the ability of the social brain DJ decode and pre-dict. In this case desire withdraws its investments, and this withdrawal gives way to depression. Here we are, after the subprime crack and the following global collapse. Now what? The economic collapse cannot be solved with the tools of nomic thought, because economic conceptualization is in fact problem and not the solution. The strict correlation between income and labot, the tartatic. pursuit of growth, the dogmas of compatibility and cOlmpetiltiollS these are the pathogenic features that our social culture must get rid of, if we want to come out of our depression. In the nc'mlin.nt) political discoutse, the overcoming of a depression means re';ta':tirtg.' the dynamics of growrh and consumption: this is what they "recovery." But this will be impossible both because the colle,othre:. debt cannot be paid and because the planet cannot support a new phase of capitalist expansion. The economy of growth is itself poison. It cannot be the antidote. Over the last ten years, the French anthropologist Serge Latouche has been talking of dicroissance (Degrowth) as a political goal. But now dissonance is simply a fact: when the Gross National Product is falling everywhere, entire sections of the industrial system are crumbling and demand is plummeting, we can say that degrowth is no longer a program for the future. Degrowth is here. The problem is that social culture is not ready for this, because Our social organization is based on the idea of the interminable expansion of consumption, and the modern soul has been shaped by the concept of privatization and by the affects of an unending increase in consumption. The very notion of wealth has to be reconsidered: not only the concept of wealth, but the perception of being rich. The identification of wealth with purchasing power is deeply embedded in the social psyche and affectivity. But a different understanding of wealth is possible, one that is not based on possession, but on enjoyment. I'm not thinking of an ascetic turn in the collective perception of wealth. I think that sensual pleasure will always be the foundation of well-being. But what is pleasure? The disciplinary culture of modernity has equated pleasure and possessing. Economic thinking has created scarcity and has privatized social need, in order to make possible the process of capitalist accumulation. Therein lies the source of the current depression. The interminable process of therapy We should not expect a swift change in the social landscape, but rather the slow surfacing of new trends: communities will abandon the field of the crumbling economy; more and more individuals will abandon their job searches and will start creating extra-economic networks of survival. The very perception of well being and of being rich will change in the direction of frugality and freedom. The de-privatization of services and goods will be made possible by this much-needed cultural revolution. This will not happen in a planned and uniform manner. It will be the effect of the withdrawal of Singular individuals and communities and of the creation of an economy based on the sharing of common things and services and on the liberation of time for culture, pleasure and affection. The identification of well-being with private property is so deeply rooted that we cannot absolutely rule out the eventuality of a barbarization of the human environment. But the task of the general intellect is precisely this: to escape from paranoia, to create zones of human resistance, to experiment with autonomous forms of production based on high-tech/low-energy models, to interpellated the people with a language that is more therapeutic than political. In the days to come, politics and therapy will be one and the same. The people will feel hopeless and depressed and panicked, because they can't deal with the post-growth economy and they will miss our dissolving modern identity. Our cultural task will be to attend to these people and to take care of their trauma showing them the way to pursue the happy adaptation at hand. Our task will be the creation of social zones of human resistance, zones of therapeutic contagion. Capitalism will not disappear from the global landscape, but it will lose its pervasive, paradigmatic role in our semiorization, it will become one of possible form of social organization. Communism will never be the principle of a new totalization, but one of the possible forms of autonomy from capitalist rule. In the 1 960s, Castoriadis and his friends published a magazine whose title was: Socialism or Barbarism. Bur you will recall that in Rhizome, the introduction to A Thousand Plateaus, Deleuze and Guattari argue that the disjunction (or. .. or. .. or) is precisely the dominant mode of Western Metaphysics that we are trying to forget. They oppose this disjunctive model with a conjunctive approach: "A rhizome has no beginning or end, bur it is always a middle, between things, interbeing, intermezzo. The tree is filiation, bur the rhizome is alliance, uniquely alliance. The tree imposes the verb 'to be: but the fabric of the rhizome is the conjunction, 'and ... and ... and .. .' This conjunction carries enough force to shake and uproot the verb 'to be' [ ... J to establish a logic of the AND, overthrow ontology, do away with foundations, nullifY endings and beginnings.'" The process of autonomy should not be seen as Aufhebung, but as Therapy. In this sense, it is neither totalizing and nor it is intended to destroy and abolish the past. In a letter to his master, Sigmund Freud, the young psychoanalyst Fliess asked when it is possible to consider a therapy to be over and the patient be told, "you are ok." Freud answered that the psychoanalysis has reached its goal when the person understands that therapy is an interminable process. Autonomy is also a process without end.

### 3

#### No 2NR “I meet” arguments, Aff theory first

# Case

### Theory

#### No 1ar theory

1] Responses to my counter interp will be new which means 1ar theory necessitates intervention---outweighs because it makes the decision arbitrary

2] Deters the 1NC from checking abuse out of fear for 1AR meta-theory, which destroys me since it’s also preclusive. Turns their infinite abuse args.

3] Resolvability double bind—either you automatically accept 2AR responses to 2NR counter-standards which means they always win since I can’t answer those responses, or you have to intervene to determine the credence you give those 2AR responses, which makes it irresolvable and unfair. and Reject infinite abuse claims—1] spikes solve—there are only so many theoretical issues anyway, 2] infinite abuse doesn’t exist since there are a finite number of rounds, 3] if I win I can’t engage in 1AR theory then you could never check infinite abuse since we can’t use your shells to determine what’s abusive, 4] minimizing abuse in other rounds can’t come at the cost of skewing me on theory in this round. There’s also no reason you have jurisdiction to check abuse in other rounds

Their stuff

1. Not infinite abuse, 1NC strat based on 1AC so it goes both ways and infinite abuse is unquantifiable and nebulous, 1ar not too short get to leverage 6 mins of ac offense, 2ar gets spin and last word and just read 1ar offense to make 2nr harder

### AFC

#### Interpretation: The affirmative must allow the negative to read a competing framework, making responses to the affirmative framework, and reconceptualize the affirmative standard without punishing the negative with a loss.

#### Violation – they read AFC

#### Drop them –

#### [1] Philosophical Education – AFC entirely eliminates philosophical education by getting rid of the framework debate - it forces debaters to accept substanitive justifications as true, encouraging debaters to support false or fallacious arguments. if there is any risk of offense as to why philosophical education is valuable- that is sufficient to outweigh all impacts from AFC because there is only a marginal gain in clash from adopting the interp but an absolute loss of framework debate

#### [2] Real World - real world arguments focus on differing values amongst decision makers and audience members which means removing the evaluation of what the aims of policy should have in the first place prevents topic education and policy analysis skills.

#### [3] Clash – AFC encourages debaters to read whatever framework has the worst negative ground since winning substance is sufficient for them to win the debate – o/w on magnitude - harder since neg framework is supposed to be a check against implausible and unturnable affirmative frameworks which kills fairness.

### Advantage

#### Medical expansion through the exporting of manufacturing technologies is the tool of the colonizer. The focus on the “entire population” is a shift from nationalism that puts the aff on a feel-good pedestal that reinforces biopolitical structures.

Thacker, Eugene. “The global genome - biotechnology, politics, and culture.” (2005). |Harun|

Frantz Fanon’s essay “Medicine and Colonialism” offers a counterpoint to what may be the new face of population genomics. Fanon’s text situates the tensions between colonizer and colonized within the framework of medicine. Although more recent developments in postcolonial studies have complicated and tempered Fanon’s position—one thinks of Homi Bhabha’s work on the colonial encounter, or Gayatri Spivak’s work on the subaltern—Fanon’s essay still has great import in thinking about the problem of biocolonialism. Writing in the midst of the Algerian revolution, Fanon’s essay is instructive for colonialisms of all kinds, for it attempts to do two things: remain decisive in a critique of colonialism and, at the same time, remain open to the transformative and empowering aspects of a science and technology that serve the people or “the population.” Fanon is adamant about the impermeable barrier between a colonized society and the colonizing one, “the impossibility of finding a meeting ground in any colonial situation.” In addition, the biopolitical concerns of a population’s health make the colonial imperative immune to critique: “When the discipline considered concerns man’s health, when its very principle is to ease pain, it is clear that no negative reaction can be justified.”70 For Fanon, the introduction of European medicine into the colonies is part and parcel of the colonial program. Not only are local knowledges and practices delegitimized, but, in the case of colonial medicine, the gift of health care always leads to an indebtedness.71 The figure of the colonial doctor is, for Fanon, a figure that represents the most insidious form of colonialism because it is precisely “life itself” and bodily health that cannot be questioned. At the end of the day, Fanon sees political and economic interChapter 4 168 ests behind this imperative of health. As he notes, “in the colonies, the doctor is an integral part of colonization, of domination, of exploitation.” Furthermore, “in the colonial situation, going to see the doctor, the administrator, the constable or the mayor are identical moves.”72 Thus, “this good faith is immediately taken advantage of by the occupier and transformed into a justification of the occupation.”73 Despite his militant position, Fanon also notes a number of complexities that arise in the colonial encounter as a medical encounter between doctor and patient. For one, he notes a fissure within Algerian culture in the figure of the native Algerian doctor. On the one hand, the native doctor understands the people and culture much better than does the colonial French doctor; on the other hand, the native doctor has been trained and schooled in Western medicine—the colonizer’s medicine—and is therefore a subject of mistrust. Not only this, but the native doctor has denounced all other modes of medical treatment as superstition, as primitive, or as irrelevant to the domain of rational scientific inquiry. The native doctor is thus put into a difficult position, at once taking on the burden of cultural understanding and yet facing resistance and mistrust from patients precisely because of this burden. If in colonial medicine the native doctor is effectively alienated, this situation is reversed by the condition of revolutionary conflict. Fanon notes how in the context of Algeria’s war of liberation the native doctor, nurse, and technician went from being an ostracized third party to becoming a constitutive part of the anticolonization movement. Certain key events served as the impetus for this transition, such as the French government’s decision, throughout 1954–55, to place an embargo on all medicines entering Algeria for the Algerian people. Although the people were barred not only from seeing the European doctors, but also from receiving vaccines and medicines, the native medical professionals, occupying an intermediary position, were able to create an infrastructure for the flow of medicines and medical knowledge into Algeria.

#### Risk society, fueled by capital’s calls for techno engineering and innovation makes extinction from pandemics inevitable. A critical reorientation is needed now.

Van Loon, J. (2002). Risk and Technological Culture: Towards a Sociology of Virulence (1st ed.). Routledge. <https://doi.org/10.4324/9780203466384> |Harun|

At first sight, the newly emergent viruses, as well as the recurrent older ones, seem to provide excellent support to Ulrich Beck’s risk society thesis. They are largely invisible (at least without the aid of highly elaborate and expensive electron microscopes), yet ubiquitous and terrifying, sometimes even lethal. Moreover, their emergence coincides with global political, economic, social and cultural developments that may signify an ‘end’ of industrial modernity and its socio-political anchorage in the nation-state. Above all, their emergence cannot be dissociated from a more generic global ecological crisis, as the hot zones of epidemic outbreaks are often the same marginal zones of industrial development and ecological exploitation. They coincide with climatological changes, pollution, mass poverty, the destruction of rainforests, large hydroelectric projects, new motorways, hospitals, social and political unrest, wars, famines and mass migration. Moreover, it seems to provide further support to the thesis that the risk society inaugurates a turning in technological culture in which science and fiction, innuendo and matters of fact, evidence and speculation all become equivalent signifiers in a frantic global spectacle of sense-making (sometimes called ‘postmodernism’). The failures of western institutions to control the rise of epidemics, and the public anxieties that are raised in the wake of technoscientific catastrophes, further contribute to a sense of despair. The sciencefiction and fiction-science writings on Ebola, for example, all breathe the same ethos of doom. What we get in these science-fiction hybrids is a paradoxical apocalyptic Utopia in which fear and anxiety are being set into work via ever more rational solutions to deal with the problems at hand.6 Such paradoxes are resolved only by negation, that is, by ignoring that there is a paradox. Towards the later parts of her chapter on the end of antibiotics, Laurie Garrett (1994), for example, seems to have actively forgotten her initial mapping of the relationship between mutating microbes and antibiotics as one of shifting transgressions, in which the defeat of antibiotics was immanent due to the superior capacity of bacteria to overcome antibiotic treatments (it is part of the genus—habitus— of bacteria to do that). Instead she suggests that misuse of antibiotics is the main culprit, in particular in ‘Third World’ countries. If the latter were true, then ‘solutions’ are easily found: education, training, discipline, monitoring 146 The Four Riders of the Apocalypse and control. However, if the former claim is true, then such strategies might only be delaying tactics—eventually, the microbes will catch up (Cannon, 1995; Garrett, 1994). However, there is clearly no reason why we should not be concerned about the organization of public health in the face of the end of antibiotics. The delaying tactics now deployed, for example, in the treatment of malaria (the latest—most effective—treatment will be given only after all other ones have failed), will help to sustain some effectivity for a longer period of time than without such planning. There is also little to disagree with when considering the efforts of devoted virus-hunters, physicians and bacteriologists who focus on educating and training local physicians and medics in many of the poorest regions of the world to recognize particular infections and deploy the most effective treatment known in (western) medicine. However, when taking a slightly broader view, one clearly sees that such efforts work only in their particularity. So, for example, it is against the logic of capital to develop policies aimed to offset rising costs of medication, in particular those of antibiotics. Accordingly, the US Pharmaceutical Manufacturers Association has played a key role in blocking many of these initiatives in the name of ‘free trade’ (Garrett, 1994:438; Mann et al., 1999). If we take the full picture, that is, one including not only pathogens and medicine, but also the global economy, capitalist industry, the warfare complex and, last but not least, apocalypse culture, it becomes obvious that there are no easy solutions. Indeed, there is no reason to be optimistic. At the end of modernity, we now fully encounter the madness of reason as it has taken on ‘lives’ of its own. The madness, which is the radical evil that corrupts any semblance of ‘good judgement’ (Rogozinski, 1996), prevents us from ‘doing the right thing’. Within the limits of reason alone, we are likely to become subjected to a microbiotic revenge that will—in the long run—decimate the human presence on this planet to such proportions that it is no longer able to threaten what Garrett (1994) describes as ‘world out of balance’. However, what lies beyond reason, beyond our abstract machine of technoscience, could very well entail the saving power towards which our predicament is destined.

### 1NC – Circumvention

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

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

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

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

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

#### Recent evidence confirms

Hillman and Tippett 21 [Jennifer A; Senior fellow for trade and international political economy; Alex; Research associate for international economics, at the Council on Foreign Relations; “Europe and the Prospects for WTO Reform,” CFR; 3/10/21; <https://www.cfr.org/blog/europe-and-prospects-wto-reform>] Justin

The WTO has been in the clutches of a slow-moving crisis for years. At its heart are a series of disputes about the role of the WTO’s Appellate Body, the final arbiter in the WTO’s Dispute Settlement System. Today, the Appellate Body sits empty, severely undermining the capacity of the WTO to resolve trade disputes.

Since the start of the Trump administration, the United States has refused to appoint any new members to the body, effectively allowing countries to avoid compliance with WTO rulings. The primary driver of this drastic action has been American frustration at perceived judicial overreach. U.S. policymakers, starting with the George W. Bush administration, have repeatedly voiced their displeasure with Appellate Body decisions, contending that certain decisions have reached beyond the text of existing WTO agreements.

### 1NC – Evergreening Fake

#### Evergreening is an incoherent concept AND anti-trust solves it

IP Watch 18 9-21-2018 "Inside Views: Why Follow-On Pharmaceutical Innovations Should Be Eligible For Patent Protection" <https://www.ip-watch.org/2018/09/21/follow-pharmaceutical-innovations-eligible-patent-protection/> (a non-profit independent news service that provides professional coverage of global policymaking on intellectual property and innovation.)//Elmer

“Evergreening” – an Incoherent Concept Drug innovators are often accused of using secondary patents to “evergreen” the patent protection of existing drugs, based on an assumption that a secondary patent somehow extends the patent protection of a drug after the primary patent on the active ingredient is expired. As a general matter, this is a false assumption — a patent on an improved formulation, for example, is limited to that improvement and does not extend patent protection for the original formulation. Once the patents covering the original formulation have expired, generic companies are free to market a generic version of the original product, and patients willing to forgo the benefits of the improved formulation can choose to purchase the generic product, free of any constraints imposed by the patent on the improvement. Of course, drug innovators hope that doctors and their patients will see the benefits of the improved formulation and be willing to pay a premium for it, but it is important to bear in mind that ultimately it is patients, doctors, and third-party payers who determine whether the value of the improvement justifies the costs. Of course, this assumes a reasonably well-functioning pharmaceutical market. If that market breaks down in a manner that forces patients to pay higher prices for a patented new version of a drug that provides little real improvement over the original formulation, then it is the deficiency in the market which should be addressed, rather than the patent system itself. For example, if a drug company is found to have engaged in some anticompetitive activity to block generic competition in the market for the original product once it has gone off patent, then antitrust and competition laws should be invoked to address that problem. If doctors are prescribing an expensive new formulation of a drug that provides little benefit compared to a cheaper, unpatented original product, then that is a deficiency in the market that should be addressed directly, rather than through a broadside attack on follow-on innovation. In short, if is found that secondary patents are being used in a manner that creates an unwarranted extension of patent protection, it is that misuse of the patent system which should be addressed directly, rather than through what amounts to an attack on the patent system itself.

#### Evergreening is a myth – this card ends the debate.

Lietzan 20 [Erika; Professor of Law, University of Missouri School of Law, Research interests in Pharmaceutical Regulation, Device Regulation, Intellectual Property; “The Evergreening Myth Claims that drug innovators extend their patents obscure a radical policy‐​making goal.,” Cato Institute; Fall 2020; <https://www.cato.org/regulation/fall-2020/evergreening-myth>/] Justin

In recent years, U.S. policymakers have considered proposals intended to prevent — or at least reduce — “evergreening” by pharmaceutical companies. Some proposals would change the antitrust enforcement landscape, others the intellectual property landscape, and still others the regulatory framework that governs new medicines. Some proposals — such as those creating new causes of action under the antitrust laws or limiting the availability of patents for discoveries — are profound and their proponents cite a body of academic and policy literature that decries supposed “evergreening” by companies to justify their ideas.

The term “evergreening” is a metaphor, meant to remind audiences of evergreen trees, which have green foliage year‐​round. It implies that something has been extended, and users of the metaphor view this extension as improper or undesirable. When offering descriptions and examples of evergreening, they focus on drug companies continuing to innovate after first introducing a new molecule, and on the broader marketplace for medicines after subsequent innovations have been introduced to the market. But proponents are frustratingly inconsistent and unclear about what, exactly, has been “extended” in these situations. A close look at the regulatory landscape in which continuing pharmaceutical innovation occurs shows that arguments for reform are grounded in myths, such as the myth that pharmaceutical companies continuing to innovate somehow “extend” their patents.

Once the myths of “evergreening” are laid bare, it becomes apparent that proponents of these proposals really want for the government to limit medical innovators to one medical product in the marketplace for each useful new molecule discovered. They are arguing that an innovator should not enjoy an exclusive market — and the resulting advantageous pricing — for innovations that, though discrete and independently satisfying the standard for a patent under U.S. law, stem in some fashion from an earlier innovation for which that innovator separately enjoyed exclusivity and the resulting pricing advantages. Or, at least, that drug innovators should not. This is a radical proposal that merits careful reflection and discussion, and it is not ripe for action. Understanding that this is the true policymaking objective requires unpacking the regulatory landscape and market more carefully, and paying closer attention to word choice, than proponents of reform often do. The Evergreening Allegation In the United States, every new medicinal product requires premarket approval from the Food and Drug Administration. The drug statute refers to approval of a “new drug,” and ambiguity in the term “drug” provides fertile ground for confusion and rhetorical mischief, as discussed later in this article. A firm that wants to market a new drug must prove to the FDA that the drug is safe and effective. Generating this information takes years, beginning with work in the laboratory and on animals, and progressing through several rounds of “clinical” testing in humans. For new molecules, the clinical portion of this research and development program averages six years. The process is also expensive: the Tufts Center for the Study of Drug Development now estimates the average cost of developing a new molecular entity at $2.6 billion. That figure includes average out‐​of‐​pocket costs of $1.4 billion and reflects the cost of unsuccessful projects. Most research and development programs fail. When new drugs are first launched by innovators, they tend to be sold under brand names and protected by patents as well as statutory rights in the data that supported FDA approval (known as “data exclusivity”). Although the pricing of these products may reflect competitive pressure from other branded products, it also reflects the fact that patent rights and statutory data exclusivity delay the launch of cheaper copies. But no more than five years later, and often earlier, the innovator’s competitors may file applications seeking approval of their own products based on the innovator’s research, rather than performing their own. They file what are known as “abbreviated applications” — abbreviated because they omit some, or all, of the research needed to prove safety and effectiveness. Abbreviated applications are much less expensive and time‐​consuming to assemble, and the competitors’ drugs correspondingly much less expensive than the original drugs they copy. When a competitor seeks to market an exact copy through an abbreviated application, we call its drug a “generic” drug. Pharmacists usually dispense generic copies even when doctors prescribe the corresponding branded products by name. Some people use the “evergreening” label when an innovator holds more than one patent protecting its product, especially if some patents expire later than others. More often, though, these people use the label when an innovator introduces a newer version of its own product that is already on the market. These newer products tend to be sold under brand names and protected by their own patents and statutory data exclusivity. Sometimes the innovator also stops selling its older product. If purchasers shift to the innovator’s newer product rather than purchasing cheap copies of the innovator’s older product, some say the innovator has engaged in evergreening. Although the term “evergreening” is a metaphor and signifies an extension of something, proponents of reform proposals do not agree on the particulars of the term’s use. Some say the company has evergreened its invention, its drug, or its product. Others say the company has evergreened the drug’s patent or patent life, or its exclusivity. Some say it has extended the drug’s patents, or the drug’s patent coverage or patent life, or the drug’s exclusivity period. Some say the company has evergreened the drug’s price, or its own profits or monopoly, or the company has extended its market power. Many argue that through evergreening — whatever the term means — the innovator has improperly blocked other firms from competing with it. On this basis, they seek government intervention. For instance, one recent proposal would allow the Federal Trade Commission to bring antitrust actions against innovators who introduced newer products to replace their older products. Three Myths of Evergreening The circumstances that trigger the “evergreening” label occur at the intersection of several complex bodies of law: the federal framework requiring premarket approval of new medicines and their copies, federal intellectual property laws, federal and state laws governing promotion of medicines, and federal laws and practices and state laws relating to prescribing and dispensing medicines. Many who propose aggressive government intervention because of evergreening give short shrift to this landscape, which allows the perpetuation of three myths that distort policymaking discussions. Before reviewing the myths, it will help to understand two points about the framework in which innovators compete with the companies that submit abbreviated applications. First, the FDA approves products, not active ingredients. And second, patents protect inventions, not products. Federal law states that every “new drug” requires an approved application. But at the FDA the term “drug” has more than one meaning. It includes a medicine’s active ingredient, to be sure. But it also includes drug products. A drug product is a medicine in its finished form, meaning the form that will be sold in the market and administered to patients. And the FDA approves a particular product described in a particular application — the specific combination of active and inactive ingredients (often called a drug’s “formulation”), in a particular dosage form (such as capsule or tablet), for a particular route of administration (such as oral or topical), at a particular strength, for particular medical uses (also known as the product’s “indications”), manufactured as described in the application, and accompanied by labeling written for prescribers based on the data in the application. Federal law allows a patent to issue for any new, useful, non‐​obvious invention, including a process, a composition of matter, and an improvement to an existing process or composition of matter. The patent usually expires 20 years after its application date. For any particular drug product approved by the FDA, the innovator might own patents on various types of inventions. The innovator usually owns a patent claiming the product’s active ingredient, and because the innovator generally files this patent before starting clinical trials, it is usually the first to expire. Other inventions protected by patent might include the product’s formulation or a dosage form and dosage of the active ingredient (or formulation). These inventions may emerge later in the premarket development process. If the resulting patent applications refer to the active ingredient patent, the patents will expire when the active ingredient patent expires, but otherwise they will expire later. The innovator may also own other patents claiming inventions embodied in the product, such as a patent claiming methods of using or administering the product, a patent claiming the manufacturing process, or a patent claiming a metabolite of the active ingredient. These, too, could expire later than the first patent — sometimes much later. These two points work together. A single active ingredient associated with a single brand name might be the subject of a half dozen, dozen, or more discrete products. Suppose an active ingredient was formulated into tablets and the innovator sold six strengths. Suppose the innovator also formulated an injectable version, which it sold in two strengths. Suppose it also developed a disintegrating tablet for oral administration, which it sold in four strengths. This innovator would sell 12 discrete products with the same active ingredient and probably (though not necessarily) the same brand name. And because a single product might incorporate many discrete inventions, the patents relevant to one product might differ from the patents relevant to another. Failure to realize this — and its regulatory significance — leads to three myths, as follows.

Myth of evergreening patents / The first myth is that innovators extend their patents. This is legally impossible. In the United States, a patent expires 20 years after its application date.

There are only two ways a patent’s expiration date can shift later in time: (1) When it issues a patent, the U.S. Patent and Trademark Office (PTO) adjusts the expiry date later to compensate for routine delays at the PTO. And (2), if the marketing application proposed a new active ingredient, then if the company asks the PTO for a patent term extension within 60 days of FDA approval, the PTO will use a statutory formula to extend one patent claiming the product to compensate partially for the lapse of patent life during premarket testing and regulatory review. There is no other mechanism by which a patent might be extended. In particular, a patent on one invention — no matter when it expires — does not extend the patent on another invention.

Myth of blocked competitors / The second myth is that when an innovator holds patents that expire after its active ingredient patent, or when it introduces newer products to market, it can prevent its competitors from bringing their copies to market. Instead, once the initial patent and (if applicable) statutory exclusivity on the innovator’s active ingredient have expired, its competitors have substantial freedom to operate. This freedom reflects two facts that are often overlooked.

First, the innovator’s competitor does not have to propose an exact copy. Federal law permits the competitor to rely on the innovator’s research but propose competing products that are not identical. To be sure, a competitor may submit an ANDA for a product that essentially duplicates the innovator’s product — that is, a generic. Ordinarily, the company shows in the ANDA that its product has the same active ingredient, route of administration, dosage form, strength, and labeling as the innovator’s product. The generic must also be “bioequivalent” to the original drug that it references, meaning that its active ingredient must reach the site of action in the body to the same extent and at the same rate as the active ingredient of the referenced product. But even a generic can be a little different. For example, it usually does not need the same inactive ingredients in the same quantities. And the generic competitor need not use the same manufacturing process.

If a competitor wants to offer a different route of administration, dosage form, or strength — for instance, to avoid infringing a patent — it may still be able to use the generic drug approval pathway. It simply files a “suitability petition” asking the FDA’s permission. The agency will approve the petition unless more data are needed to establish the proposed product’s safety and effectiveness. And at this point, the competitor may file an ANDA. More significantly, though, a competitor can always use a different abbreviated application pathway: a “505(b)(2)” application for a product that differs more substantially from the innovator’s product. Although the changes proposed in this hybrid application must be supported by new data, the competitor otherwise relies on the innovator’s data, avoiding the expensive and time‐​consuming research and development process the innovator went through. In addition to using this mechanism to propose modifications that avoid a patent, a competitor might use the mechanism to propose innovations that will offer an advantage in the market — such as changes to the active ingredient and new medical uses.

Second, an abbreviated application cites a specific innovative product, not the active ingredient or brand writ large. The competitor selects one innovative product as the reference product on which it relies — for instance, one of the 12 products in the hypothetical above. Its regulatory burden is tied to that specific product alone. The requirement to show sameness and bioequivalence (for an ANDA) and, critically, the obligation to contend with patents and wait for statutory exclusivity to expire are linked to the one specific product, alone. (In rare circumstances, when filing a hybrid application, a competitor might cite two innovative products, but the same point applies.)

To be sure, the patents associated with the cited innovative product affect when the FDA may approve the abbreviated application. Whether it files an ANDA or a hybrid application, a competitor must address the unexpired patents listed in the FDA’s “Orange Book” for the specific innovative product it has chosen to cite. For each listed patent, it has two choices, and its selection dictates the timing of FDA approval as far as that patent is concerned. The competitor may state the date on which the patent will expire, signaling that it does not plan to market its product until expiry. This precludes final approval of its product until patent expiry. Or it may assert that the patent is invalid or will not be infringed by its product, notifying the innovator of this position. If the innovator sues within 45 days, the drug statute stays final approval of its abbreviated application for 30 months. Under changes to the law made in 2003, though, unless the competitor changes its position on a patent after filing its abbreviated application, approval of its application is stayed only once. At the end of the 30 months, the FDA must approve the abbreviated application if the approval standard is met, even if there is ongoing patent litigation.

Although a competitor using the abbreviated application pathway must contend with the innovator’s patents and approval of its product may be delayed because of those patents, this is true of only the patents associated with the specific product that it references. The competitor does not have to contend with patents associated with other products that happen to contain the same active ingredient or bear the same brand name. Similarly, the competing applicant grapples with only the statutory exclusivity associated with the product it references. The drug statute provides five years of exclusivity in the data supporting new chemical entities and three years of exclusivity for most new products that are not new chemical entities. Separately, if an innovator introduces what the FDA calls a new “condition of approval” — such as a new strength or dosage form — the drug statute may provide three years of exclusivity. This delays approval of abbreviated applications proposing products with the same active ingredient for the same condition of approval. But a competitor that proposed a different strength or dosage form — or that cited a product with a different strength or dosage form (such as the innovator’s original product) — would not need to grapple with that exclusivity.

This debunks the myth that an innovator with later‐​expiring patents and an innovator that introduces newer products can prevent its competitors from bringing copies to market. Instead, competitors have several options. For instance, empirical studies show that competitors file abbreviated applications as early as the law permits them to do so, arguing that the innovator’s patents are invalid or, if applicable, not infringed by the new drug. They tend to lose these arguments when the active ingredient patent is at issue, but they tend to win if a formulation patent is at issue. If a competitor believed it would infringe a patent or feared it would lose the patent infringement suit brought by the innovator, it could seek a license. Settlements of patent litigation between innovators and competitors seeking to market generic copies usually include a license allowing the competitor to bring its product to market earlier than the date of patent expiry. There are also other options.

Once the patent on the active ingredient expires, a competitor can use the ingredient in its own product and file an abbreviated application, relying on the research performed and submitted by the innovator. Even in an ANDA, a true generic application, only the active ingredient must be the same. A competitor may be able to design around patents claiming other aspects of the innovator’s product (such as its strength and route of administration) and still file a true generic application. The competitor would simply file a suitability petition and, upon approval of that petition, a generic application proposing the difference that allowed it to avoid patent infringement. Then it would assert non‐​infringement in its application. If it could not file a generic application (for instance, because the FDA requested data to support the changes made), it could always file a hybrid application. It would still rely on the innovator’s research and it would similarly assert non‐​infringement in its application. In either case, the innovator might not sue if the competitor clearly avoided its patents.

It is thus misleading for advocates of intervention to complain about the number of “patents” associated with a “drug.” A competitor filing an abbreviated application does not copy a “drug” in the broad sense of the term. Accurately describing a company’s freedom to operate in the market would require focusing on discrete products that can serve as references for abbreviated applications and on the number, scope, and breadth of the patent claims held by the innovator for those products. This would tell policymakers more about the market effects of a firm’s innovation and patenting practices than the number of patents associated with a particular brand name or the number of patents associated with the many finished products containing a particular active ingredient.

Myth that automatic substitution is critical / The final myth of evergreening is that continuing innovation — especially when an innovator introduces a newer version of its product and stops selling its old version — precludes uptake of less expensive medicines by interfering with automatic pharmacy substitution under state pharmacy law. This myth reflects an assumption that competitors who file abbreviated applications depend on automatic pharmacy substitution — rather than the ordinary rough and tumble of a competitive marketplace — to obtain market share. The truth may be more complicated.

Automatic pharmacy substitution arises through a combination of longstanding FDA practices and state pharmacy law. Once the agency has approved two products with the same active ingredient, it assesses whether they are “therapeutically equivalent.” Designating two as therapeutically equivalent means that they have the same clinical profile and that they can be “substituted”: either can be dispensed instead of the other. A true generic drug, an exact copy of the innovator’s product approved based on an ANDA, will be deemed therapeutically equivalent. Every state either permits or requires pharmacists to dispense a therapeutically equivalent generic drug when a doctor prescribes an innovator’s drug by its brand name, unless the doctor has said not to. The notion advanced by critics of alleged “evergreening” is that once an innovator introduces a newer version of its branded product, doctors will prescribe the newer version. And because the generic company instead copied the older version, pharmacists will not — cannot under state law — substitute the generic product when the patient presents a prescription for the newer innovator product.

The problem with this argument is that actual dispensing decisions probably reflect a more complex interaction of prescriber decisions, payer preferences, and state law. To begin with, a doctor may specify either branded drugs or generic drugs. A doctor could write the brand name, to be sure, but the doctor could also simply identify the active ingredient, which will usually lead the pharmacist to dispense one of the available generic drugs. In theory, the doctor could even identify a particular generic company’s drug containing a particular active ingredient. And while drugmakers rarely promote generic drugs to doctors and patients, nothing prevents them from doing so. They do promote their therapeutically equivalent generic drugs to pharmacies and payers, focusing on the lower prices they offer. And a company that filed a hybrid application for a product that differed from the innovator’s product might brand its product and promote the distinguishing features, or (depending on the reason it filed the hybrid application) position the product as a near‐​duplicate of the more expensive branded alternatives and promote it as such.

In short, an innovator’s newer product creates a new choice for doctors and payers. To be sure, if doctors select this product, pharmacists will dispense it rather than generic copies of the innovator’s older product. Doctors might shift their prescribing to the newer product for many reasons, including persuasive advertising and promotion — meaning they come to believe (based on advertising that, per FDA rules, must be truthful and not misleading) that there are benefits to the newer product. They might shift for other reasons, including experience treating patients with the two options. But companies may advertise and promote generic products to doctors and patients as well, and based on this advertising (or for other reasons, such as experience with the older innovative product that the competitor copied) doctors might not select the innovator’s newer product. They might specify the innovator’s older product (which would lead to automatic substitution, even if the innovator no longer markets the product) or, again, a generic product itself.

Generic companies will be able to introduce copies of the innovator’s first product and they may or may not enjoy sales depending on the choices they make and the choices made by others in the market.

The assumption that competing companies depend on automatic substitution for market share may be simplistic. Only a minority of states require substitution; most instead have permissive laws. In these states, if a generic product is therapeutically equivalent to the prescribed product and the payer requires its use, the permissive state pharmacy law makes it possible for a pharmacist to substitute, in accordance with the patient’s insurance, without consulting the physician. In these cases, the patient’s insurance drives the product selection. State law just makes it possible to comply with the insurance without contacting the doctor. If a payer perceives the innovator’s new product as less cost effective than available generic drugs containing the same active ingredient, it may decline to cover the product. A rational payer will adopt strategies that steer doctors and patients to less expensive products that are equally or adequately effective — not only those that are therapeutically equivalent, but also those that are not. In these cases, even if a doctor specifies a branded product, the patient’s insurance might prompt a conversation among the doctor, pharmacist, and patient, ultimately leading to modification of the prescription and dispensing of the cheaper copy of the innovator’s first‐​version product.

In short, when an innovator introduces a new product into the market, generic companies will be able to introduce copies of the innovator’s first product and they may or may not enjoy sales depending on the choices they make and the choices made by others in the market. In this scenario, products compete for the business of rational payers based on their comparative benefits and cost. Substitution may play almost no true role, and whether the innovator still markets its older branded product may be irrelevant.

### 1NC – Superbugs

#### Either they cant solve or no impact.

Fikes 17 – U-T San Diego's biotechnology reporter; covered the industry since 1990, internally cites study by authors from Harvard Medical School [Bradley J., 5/11/2017, “Long before the dinosaurs, antibiotic-resistant superbugs thrived”, The San Diego Union-Tribune, <http://www.sandiegouniontribune.com/business/biotech/sd-me-antibiotic-resistance-20170511-story.html>] AMarb

There’s a good reason why antibiotic-resistant bacteria are so tough, and it has less to do with humans than previously thought, according to a new study. A class of bacteria containing particularly troublesome superbugs that today plague hospitals dates back at least 425 to 450 million years, according to a team of Massachusetts researchers. Called enterococci, these hardy bacteria have endured several mass extinctions, including the Permian catastrophe of about 252 million years ago that destroyed nearly all species, including the trilobites. They survived the extinction of non-avian dinosaurs at the end of the Cretaceous without missing a beat. Using genetic techniques to track the diversification of enterococci, the researchers found that this group dates back to the time when animals first left the water for land. Moreover, their divergence also matched the emergence of new animal species, especially after the Permian extinction. The implication for those fighting superbugs is that antibiotic resistance is part of a survival toolkit that has been baked into their DNA for hundreds of millions of years. Overcoming everything Mother Nature could throw at them, these ancient bacteria are well-equipped to handle antibiotics and other means of controlling them that humans can devise. “Enterococci are distinguished from their ancestors and appear to have been selected for, by virtue of having developed a hardened cell wall and the ability to cope with environmental stress —traits that now render them resistant to denaturing solvents, disinfectants, and intrinsically, to many antibiotics,” the study concluded. “These are exactly the traits that enable them to persist in the modern hospital environment. Thus, the emergence of enterococci as leading hospital pathogens appears to have been foreordained by events of at least 425 mya.”

### Method