# Speech 1AC Grapevine Bid Rd vs Yesh 9-12 10AM

Theory after phil

### FW

#### The meta-ethic is egoism –

#### 1] Opacity – individuals can’t access another’s perspective – we can never fully understand who someone else is or what they think so actions are based off individual desire and self-interest.

#### 2] Linguistics – moral truths aren’t extrinsic facts to be discovered but indeterminate linguistic categories of artificial creation.

Parrish 05 [Rick Parrish (assistant professor of Political Science at West Texas A&M University). "Derrida’s Economy of Violence in Hobbes’ Social Contract," John Hopkins University Press, Volume 7, Issue 4. 2005. Accessed 7/29/21. [https://muse.jhu.edu/article/244119/](https://muse.jhu.edu/article/244119//) //Xu]

Perhaps the single most telling quote from Hobbes on this point comes from The Philosophical Rudiments Concerning Government and Society (usually known by its Latin name, De Cive), in which he states that “to know truth, is the same thing as to remember that it was made by ourselves by the very usurpation of the words.”[24](https://muse.jhu.edu/article/244119" \l "f24) “For Hobbes truth is a function of logic and language, not of the relation between language and some extralinguistic reality,”[25](https://muse.jhu.edu/article/244119" \l "f25) so the “connections between names and objects are not natural.”[26](https://muse.jhu.edu/article/244119" \l "f26) They are artificially constructed by persons, based on individual psychologies and desires. These individual desires are for Hobbes the only measure of good and bad, because value terms “are ever used with relation to the person that useth them, there being nothing simply and absolutely so, nor any common rule of good and evil to be taken from the nature of the objects themselves.”[27](https://muse.jhu.edu/article/244119" \l "f27) Since “there are no authentical doctrines concerning right and wrong, good and evil,”[28](https://muse.jhu.edu/article/244119" \l "f28) these labels are placed upon things by humans in acts of creation rather than discovered as extrinsic facts. Elaborating on this, Hobbes writes that “the nature, disposition, and interest of the speaker, such as are the names of virtues and vices; for one man calleth wisdom, what another calleth fear; and one cruelty what another justice.”[29](https://muse.jhu.edu/article/244119" \l "f29) A more simplistic understanding of the brutality of the state of nature, which David Gauthier calls the “simple rationality account,”[30](https://muse.jhu.edu/article/244119" \l "f30) has it that mere materialistic competition for goods is the cause of the war of all against all, but such rivalry is a secondary manifestation of the more fundamental competition among all persons to be the dominant creator of meaning. Certainly, Hobbes writes that persons most frequently “desire to hurt each other” because “many men at the same time have an appetite to the same thing; which yet very often they can neither enjoy in common, nor yet divide it; whence it follows that the strongest must have it, and who is strongest must be decided by the sword.”[31](https://muse.jhu.edu/article/244119" \l "f31) But this competition for goods only arises as the result of the more primary struggle that is inherent in the nature of persons of meaning creators. In the state of nature, “where every man is his own judge,”[32](https://muse.jhu.edu/article/244119" \l "f32) persons will “mete good and evil by diverse measures,”[33](https://muse.jhu.edu/article/244119" \l "f33) creating labels for things as they see fit, based on individual appetites. One of the most significant objects that receives diverse labels in the state of nature is 'threat'. Even if most people happen to construe threat similarly, there will be serious disagreement regarding whether or not a specific situation fits a commonly-held definition.”

#### 3] Psychology – fMRI studies prove there’s not unified temporal identity – we can only care about our current self-interests.

Opar 14 [Alisa Opar (features editor at Audubon magazine). “Why We Procrastinate”. Nautilus. August 14, 2014. Accessed 7/31/21. <https://nautil.us/issue/16/nothingness/why-we-procrastinate> //Recut Xu]

The British philosopher Derek Parfit espoused a severely reductionist view of personal identity in his seminal book, Reasons and Persons: It does not exist, at least not in the way we usually consider it. We humans, Parfit argued, are not a consistent identity moving through time, but a chain of successive selves, each tangentially linked to, and yet distinct from, the previous and subsequent ones. The boy who begins to smoke despite knowing that he may suffer from the habit decades later should not be judged harshly: “This boy does not identify with his future self,” Parfit wrote. “His attitude towards this future self is in some ways like his attitude to other people.” Parfit’s view was controversial even among philosophers. But psychologists are beginning to understand that it may accurately describe our attitudes towards our own decision-making: It turns out that we see our future selves as strangers. Though we will inevitably share their fates, the people we will become in a decade, quarter century, or more, are unknown to us. This impedes our ability to make good choices on their—which of course is our own—behalf. That bright, shiny New Year’s resolution? If you feel perfectly justified in breaking it, it may be because it feels like it was a promise someone else made. “It’s kind of a weird notion,” says Hal Hershfield, an assistant professor at New York University’s Stern School of Business. “On a psychological and emotional level we really consider that future self as if it’s another person.” Using fMRI, Hershfield and colleagues studied brain activity changes when people imagine their future and consider their present. They homed in on two areas of the brain called the medial prefrontal cortex and the rostral anterior cingulate cortex, which are more active when a subject thinks about himself than when he thinks of someone else. They found these same areas were more strongly activated when subjects thought of themselves today, than of themselves in the future. Their future self “felt” like somebody else. In fact, their neural activity when they described themselves in a decade was similar to that when they described Matt Damon or Natalie Portman. And subjects whose brain activity changed the most when they spoke about their future selves were the least likely to favor large long-term financial gains over small immediate ones. Emily Pronin, a psychologist at Princeton, has come to similar conclusions in her research. In a 2008 study, Pronin and her team told college students that they were taking part in an experiment on disgust that required drinking a concoction made of ketchup and soy sauce. The more they, their future selves, or other students consumed, they were told, the greater the benefit to science. Students who were told they’d have to down the distasteful quaff that day committed to consuming two tablespoons. But those that were committing their future selves (the following semester) or other students to participate agreed to guzzle an average of half a cup. We think of our future selves, says Pronin, like we think of others: in the third person.

#### 4] Hedonism – even if we know what is ethical, there’s nothing that binds us to ethical behavior or the best metric for maximizing those outcomes. Bindingness O/W – if morality is arbitrary, there’s no reason to follow it and can’t guide action.

#### Absent a unifying force, competing truth claims are irresolvable and collapses into the State of Nature –

#### 1] Ambiguity – individuals assert differing perspectives and culminates in irresolvable conflict absent a unifying mediator which renders truth and ethics indeterminate through unending contestation.

#### 2] Violence – individuals must act in self-preservation. Without a force to provide protection, each person acts violently to defend themselves, resulting in infinite uncontrolled violence.

#### To escape the State of Nature, individuals unite to imbue a sovereign with absolute authority to define ethics – individuals can disobey the sovereign only when alienated from self-preservation.

Lopata 73 [Bracketed for Gendered Language. Benjamin B. Lopata (B.Phil from Balliol College, Oxford). “Property Theory in Hobbes.” Political Theory, Vol. 1, No. 2 (May, 1973), pp. 203-218. Accessed 7/31/2021. <https://www.jstor.org/stable/191194?seq=1#metadata_info_tab_contents> //Xu]

Hobbes is preeminently a philosopher of peace. He sees self-preser- vation, the protection of one's life, as the basic human aim-the summum bonum; his political philosophy is an attempt to indicate the optimum conditions which lead to the preservation of life. Hobbes believes in the necessity of an absolute sovereign, a conclusion which he reaches by considering the condition of man in the state of nature, a logical precondition of civil society. The state of nature is not a historical condition; rather, it is a situation in which there is no supreme power to impose the order necessary for self-preservation. It is, as Watkins (1965: 72) notes, "an 'ideal' or limiting case." Hobbes (1958: 106) characterizes the state of nature as "a war of every man against every man," a condition in which the life of man is "solitary, poor, nasty, brutish, and short" (Hobbes, 1958: 107). There are three principle causes of quarrel in the state of nature: "first, competition; secondly, diffidence; thirdly, glory" (Hobbes, 1958: 106). Hobbes believes that men, in their pursuit of felicity, their constant competition for power after power have the right to all things in the state of nature; this condition is conducive to war, since, as Goldsmith (1966: 88) notes, In such a state of nature, although A and B do not necessarily have a right to the same thing, they may have. B's right does not exclude A's right; in a state of nature, no man can acquire an exclusive right to anything. A may claim what B currently has. Furthermore, since men are naturally diffident, or fearful of one another, each will be likely to preserve his safety by attacking his neighbor, since he fears his neighbor might well do the same to him. Finally, men are vain and constantly seek glory; each views himself as superior to other man and wants others to recognize this fact. Men will, according to Hobbes (1958: 106), use violence "for trifles, as a word, a smile, a different opinion, and any other sign of under-value." These motivations, coupled with the natural equality of all men-an equality predicated on the ability of the weakest to kill the strongest-are the parameters which explain the continuous state of war in the Hobbesian state of nature. Hobbes believes that man is a creature who is primarily motivated by his passions; reason cannot tell men what to desire but only how best to gratify their passions. Indeed, for Hobbes (1958: 109), it is as a result of mcn's passions that the move from the state of nature to civil society is effected: "The passions that incline men to peace are fear of death, desire of such things as are necessary to commodious living, and a hope by their industry to obtain them." Of these passions, it is fear which is the predominant spur to peace, as Professor Plamenatz (1963: 12) notes: "And where there is anarchy, the passion which will make men submit once again to law and government will not be a passion weakened by anarchy but a passion which anarchy makes strong. And that passion, as Hobbes says, is fear." Men desire peace; it is a reason which suggests the laws of nature which make peace achievable, laws which are in effect conditional maxims of prudence, rather than divinely inspired duties binding on all men. Hobbes' laws of nature, as John Dewey (1918: 110) observes, "are equivalent to the counsels and precepts of prudence, that is to say, of judgment as to the proper means for attaining the end of a future enduring happiness." The basic law of nature is "to seek peace and follow it" (Hobbes, 1958: 110), a maxim which in turn, for Hobbes, spawns the other precepts which make that peace a reality. In accordance with the laws of nature, all [people] men covenant with each other to transfer their "power and strength" (Hobbes, 1958: 142) to a third person: "I authorize and give up my right of governing myself to this man, or to this assembly of men, on this condition, that you give up your right to him and authorize all his actions in like manner." Hobbes believes that it is only when all [people] men transfer their rights to a sovereign, thereby enabling [the sovereign] him to enforce [its] his will as law, that the goal of peace will be achieved. Consequently, Hobbes' sovereign is absolute, individual [people] men retaining only the right to disobey the sovereign if [it] he threatens their self-preservation; self-preservation is, in the final analysis, the very motivation which impels [people] men to form a commonwealth and cannot, therefore, be alienated. For Hobbes, then, as Michael Oakeshott (1946: xvi) has observed, civil society offers the removal of some of the circumstances that, if they are not removed, must frustrate Felicity. It is a negative gift, merely making not impossible that which is desirable. Here in civil society is neither fulfillment nor wisdom to discern fulfillment, but peace, a Pax Romana, a tranquilitas.

#### Thus, the standard is *consistency with absolute sovereignty*.

#### Impact Calc –

#### 1] its procedural – we embody the position of the sovereign and use its decision-making procedure – to clarify, consequences are a sequencing question.

#### 2] Intentions First – a] sovereignty is formed when individuals cede their intrinsic rights to the sovereign, not some consequence or historical condition b] intent is the only part of the action internal to the subject, so it’s the only thing we can be held ethically responsible for under egoism

#### Prefer Additionally –

#### 1] Performativity – the reason rounds have a winner and loser is because of the judge’s sovereign power to reconcile argumentative clash. Every framework collapse because they all require argumentative evaluation that is our framework.

#### 2] Rule Following – agents formulate an arbitrary or unique understanding of rules and it becomes impossible to verify falsity since they perceive it as legitimate. Only the sovereign solves because it is the absolute mediator of truth and conflict.

#### 3] Infinite Regress – other theories fail because individuals question why they follow them, but individuals consent to the state by engaging in the social contract.

#### 4] Constitutivism – obligations differ based on the nature of agency – a janitor has different obligations than teachers – proves the state has unique obligations that might be inconsistent with morality in general.

#### 5] Solves Skep – the sovereign motivates each individual to abide by ethics and laws so they can’t opt out due to constant questioning. Especially true in debate – the judge still votes correctly even if skep was read.

#### 6] ASpec –

#### a] Starting Point –

#### b] Unification –

#### c] Side Constraint –

#### d] Different Sovereigns –

### Affirm

#### 1] The sovereign has the obligation to waive intellectual property rights under threat of a clear and present danger – that means public health disasters.

Ashcroft 05 [Richard E. Ashcroft (MA, PhD Reader in Biomedical Ethics in the Department of Primary Health Care and General Practice at Imperial College London). “Access to essential medicines: a Hobbesian social contract approach”. Dev World Bioeth. 2005 May;5(2):121-41. Accessed 7/31/2021. <https://pubmed.ncbi.nlm.nih.gov/15842722/> //Xu]

The primary function of the sovereign state is thus to preserve its citizens from the state of Hobbesian war, in order that the citizens may flourish. Part of the means states devise to protect their citizens from Hobbesian war is the creation of private property rights in order to protect personal interests and stimulate trade. However, the creation of such rights is instrumental to the prevention of Hobbesian war, rather than fundamental. Hence in a situation in which there is a clear and present danger of a state of Hobbesian war – say, because of an imminent or actual public health disaster – or indeed in a situation of Hobbesian war, sovereign states have an obligation to do whatever is necessary to avert or end this situation. This can include overriding previously granted property rights. The tests of whether it would be legitimate to do so would be whether this was proportionate to the threat of Hobbesian war, whether there were alternatives within the legal system which would achieve the same end, and whether resort to this power would alleviate the present threat without making Hobbesian war more likely in future. The latter test is important. If alienating property were seen fatally to undermine private trust in the institutions of property, then this would also present a clear and present danger of Hobbesian war.29 In Hobbes, states act through the law, while being above it. Nonetheless, there is a powerful prudential interest in keeping to legal means of action rather than simply acting at whim and will, since the chief role of the state is to create conditions of stability and trust between citizens and between citizen and the (representatives of the) state. Yet what gives the law its persuasive force, in Hobbes, is the combination of the actual monopoly of legislative and military authority, and the foundation of this in the contractually constructed function of preserving the ‘common weal’. Hence states retain the power to make and enforce laws, and to act, in emergencies, using sovereign power beyond the law. That they retain this power is the most powerful incentive for citizens – and corporations and other institutions – to act in the light of the fact that if their practice endangers the common weal, there is an ultimate sanction over them. Hobbes has little to say about intellectual property, although royal grants of letters patent predated him, through which the sovereign could grant a monopoly to an individual or a corporation. Leviathan mentions monopolies in two places, both times critically.30 Hobbes argues that monopolies create artificially high prices, and allocate too much power to particular citizens or groups of citizen. Indeed, Hobbes specifically identifies ‘monopolies and abuses of publicans’ (by which he means public officials) as one ‘Of those things which weaken, or tend to the dissolution of a common-wealth’.31 His criticism here is not of the property right per se, but rather of the institution on monopoly, and behaviour of those with the power granted to make such institutions, either through private economic and personal muscle, or through sovereign grant of rights. Nonetheless, in Hobbes’s theory of property, property is nothing other than the institution of property, the sovereign grant, recognition and enforcement of the institution and of the rights derived from it. So in a sense, Hobbes recognises no distinction between intellectual and real property.

#### Don’t let them go for extinction first – here’s the brightline for exceptional conditions that the sovereign can act on.

Ashcroft 05 [Richard E. Ashcroft (MA, PhD Reader in Biomedical Ethics in the Department of Primary Health Care and General Practice at Imperial College London). “Access to essential medicines: a Hobbesian social contract approach”. Dev World Bioeth. 2005 May;5(2):121-41. Accessed 7/31/2021. <https://pubmed.ncbi.nlm.nih.gov/15842722/> //Xu]

These questions of the scope of the disaster, the measures taken to respond to it, and the dangerous slippery slopes surrounding the use of sovereign powers in ‘exceptional’ conditions are deeply troubling – although arguably no more so than the prospect of societal dissolution under conditions of uncontrolled epidemic disease. It is not clear that there are resources within Hobbes to address these questions. However, I would argue that Hobbes does at least set out what is at stake far more clearly than other liberal (or quasi-liberal) philosophers. One Hobbesian clue is that in considering what a state is for, we are forced to think through the whole range of interests we have in constructing a state over our heads. In a sense this balances the demand to throw all non-state civil institutions and legal processes out in the name of the disaster. We are obliged, so long as a state legitimately exists, to offer reasons for our policy choices, and to be accountable for those choices. It may not be possible however, to set out analytically rigorous conditions for invoking the ‘emergency clauses’ in the constitution or international agreements.42

#### 2] Absolute intellectual property rights are incoherent under absolute sovereignty.

Lopata 73 [Brackets Original and for Gendered Language. Benjamin B. Lopata (B.Phil from Balliol College, Oxford). “Property Theory in Hobbes.” Political Theory, Vol. 1, No. 2 (May, 1973), pp. 203-218. Accessed 7/31/2021. <https://www.jstor.org/stable/191194?seq=1#metadata_info_tab_contents> //Xu]

Hobbes makes the sovereign absolute and self-perpetuating because he believes that it is only such a wide grant of power to the ruler that will enable him effectively to make and enforce law, thereby preventing a return to the state of nature in which life and security are so tenuous. Hobbes necessarily believes that it is the sovereign who determines property rights, since, in the state of nature, men have the right to all things, a prime cause of strife and war. In what is perhaps Hobbes' definitive statement on property, he notes (Hobbes, 1958: 148) that the sovereign possesses the whole power of prescribing the rules whereby every man may know what goods he may enjoy and what actions he may do without being molested by any of his fellow subjects; and this is it men call propriety [sic]. For before constitution of sovereign power, as has already been shown, all men had a right to all things, which necessarily causes war; and therefore this propriety, being necessary to peace and depending on sovereign power, is the act of that power in order to the public peace [sicl. These rules of propriety. or meum and tuum, and of good, evil, lawful, and unlawful in the actions of subjects, are the civil law. The vital fact, for Hobbes, is that the state of nature is a condition in which no property rights exist; since Schlatter (1951: 140) observes, "All men have a right to everything, it is impossible to conceive of this political authority as protecting men's natural rights to property." The evidence considered points to the realization that, unlike the classical liberal, who views the state as protecting natural rights to private property, Hobbes considers the sovereign as the very institution which determines all property relations. There is no private property in the absence of sovereignty; the Leviathan and private property are necessarily concomitant. One need not turn only to Leviathan to find support for this position. In De Cive, Hobbes (1949: 74) writes that since "the opinions of men differ concerning meum and tuum," it "belongs to the chief power to make some common rules for all men and to declare them publicly, by which every man may know what may be called his, what another's." Again, in A Dialogue between a Philosopher and a Student of the Common Laws of England, written toward the end of his life, Hobbes observes: Lawmakers were before that which you call own, or property of goods and lands ... for without statute-law, all men have right to all things.... You see then that no private [individual] man can claim a propriety in any lands, or other goods, from any title from any other man but the King, or them that have the sovereign power [Schlatter, 1951: 140J.

#### 3] The sovereign anti-evergreening law – its consensus.

Smith 2-24 Tina Smith 2-24-2021 "U.S. Senator Tina Smith Pushes Bipartisan Bill to Stop Big Pharma From Keeping Drug Costs High by Unfairly Extending Monopolies" <https://www.smith.senate.gov/us-senator-tina-smith-pushes-bipartisan-bill-stop-big-pharma-keeping-drug-costs-high-unfairly> (Democratic Senator from Minnesota)//Elmer

WASHINGTON, D.C. [2/24/21]—Today, U.S. **Senators** Tina **Smith** (D-Minn.) **and** Bill **Cassidy** (R-La.) **introduced** a **bipartisan measure to stop** pharmaceutical manufacturers from claiming new innovations when they make insignificant modifications to their products in order to extend their monopolies and keep drug prices high for consumers. Currently, pharmaceutical companies engage in “**evergreening**,” which allows them to extend their patents for five years when they make minor, insignificant changes to a drug. The federal Food and Drug Administration (FDA) tried to end the practice by only granting these patent exclusivities to drugs that truly have a new chemical entity, but a district court decision invalidated the agency’s ability to block this practice. Sen. Smith’s **bipartisan** Ensuring Innovation **Act** **would ensure the FDA has the ability to curb this practice**. “High prescription drug prices are forcing too many families to choose between the medications they need and other necessities, like groceries or rent,” said Sen. Smith “In this moment, as we navigate the public health and economic crisis of COVID-19, it’s especially important that we stand up for Americans who are struggling to afford life-saving prescription drugs. The bipartisan Ensuring Innovation Act makes clear that true innovation means taking steps to make medications more effective for Minnesotans and all Americans, and focusing on driving down costs for consumers.”

### Method

#### 1] 1AR theory is legit – anything else means infinite abuse

#### – drop the debater – 1AR is too short to make up for the time trade-off

#### – no RVIs – 6 min 2NR means they can brute force me every time

#### – competing interps – reasonability narrows the theory debate to one issue of brightline, making it easy for the Neg to collapse to the issue in the long 2NR

#### 2] Give me new weighing in the 2AR for 1AR shells – I don’t know what arguments will be read in the 2NR so 1AR weighing is impossible as I don’t know what to weigh against.

#### 3] Affirm if I win offense to a counterinterp

#### A] Timeskew – 6 Minute 2NR with collapse to whatever I undercover means that you can win theory and substance, but I need to go for both in half the time and split it between the 2 layers.

#### B] Reciprocity – you get T and theory so I should get theory and an RVI to make the burden reciprocal.

#### 4] Nothing in the 1AC has triggered it, but presumption and permissibility affirm –

#### a) logic – if its permissible to do P, then you don’t have an obligation to do not P by definition.

Paraphrasing McNamara[Paul McNamara (Associate Professor of Philosophy @ the University of New Hampshire). “Deontic Logic.” Stanford Encyclopedia of Philosophy. First published Tue Feb 7, 2006; substantive revision Wed Apr 21, 2010. Accessed 11/16/19. <https://plato.stanford.edu/entries/logic-deontic//> Xu]

The five normative statuses of the Traditional Scheme are:[[4](https://plato.stanford.edu/entries/logic-deontic/notes.html#4)] it is obligatory that (OB) it is permissible that (PE) it is impermissible that (IM) it is omissible that (OM) it is optional that (OP) The first three are familiar, but the fourth is widely ignored, and the fifth has regularly been conflated with “it is a matter of *indifference* that p” (by being defined in terms of one of the first three), which is not really part of the traditional scheme (more below). Typically, one of the first two is taken as basic, and the others defined in terms of it, but any of the first four can play the same sort of purported defining role. The most prevalent approach is to take the first as basic, and define the rest as follows: PEp ↔ ~OB~p IM*p* ↔ OB~*p* OM*p* ↔ ~OB*p* OP*p* ↔ (~OB*p* & ~OB~*p*).

#### Thus, if you do not have an obligation to do not P, then you have an obligation to do P by the Law of Double Negation.

#### b) empirics

**Shah 19,**[Shah, Sachin. “A STATISTICAL ANALYSIS OF SIDE-BIAS ON THE 2019 JANUARY-FEBRUARY LINCOLN-DOUGLAS DEBATE TOPIC.” NSD Update, National Symposium of Debate, 16 Feb. 2019, <http://nsdupdate.com/2019/a-statistical-analysis-of-side-bias-on-the-2019-january-february-lincoln-douglas-debate-topic/> ]//LHPSS accessed 9/4/19

As a final note, it is also interesting to look at the trend over multiple topics. In the rounds **from** 93 TOC bid distributing tournaments (**2017 – 2019** YTD), **the neg**ative **won 52.99% of ballots** (**p-value < 0.0001)** and 54.63% of upset rounds (p-value < 0.0001). **This suggests the bias might be structural, and not topic specific, as this data spans six different topics.**

#### c) if I say my name is Daniel, then you would believe me

#### d) Presuming obligations is logically safer since it’s better to be supererogatory than fail to meet an obligation

#### e) Presuming statements false is impossible since we can’t operate in a world where we don’t trust anything

#### f) If anything is permissible, then definitionally so is the aff since there is nothing that prevents us from doing it

#### g) Epistemics – we wouldn’t be able to start a strand of reasoning since we’d have to question that reason

#### h) Otherwise we’d have to have a proactive justification to do things like drink water

### Adv

#### Plan – The member nations of the World Trade Organization ought to reduce intellectual property protections for medicines by implementing a one-and-done approach. Spec and definitions in doc

Each individual nation will implement through changing domestic laws through the equivalent of the legislative branch.

The – “used to point forward to a following qualifying or defining clause or phrase”. Google. <https://www.google.com/search?q=the+definition&rlz=1C1CHBF_enUS877US877&oq=the+definition&aqs=chrome.0.69i59j69i64j69i61j69i60l2.2103j0j7&sourceid=chrome&ie=UTF-8>

member nations of the World Trade Organization – it’s a term of art so put away your aprioris – we will defend official list – <https://www.wto.org/english/thewto_e/whatis_e/tif_e/org6_e.htm>

Ought – “used to express obligation”. Merriam Webster. <https://www.merriam-webster.com/dictionary/ought>

To – “used as a function word to indicate application or attention”. Merriam Webster. <https://www.merriam-webster.com/dictionary/to>

Reduce – “bring someone or something to (a lower or weaker state, condition, or role)” – Google. <https://www.google.com/search?q=reduce+definition&rlz=1C1CHBF_enUS877US877&oq=reduce+definition&aqs=chrome.0.69i59l2j69i60l2.3332j0j7&sourceid=chrome&ie=UTF-8>

Intellectual property protections – it’s a term of art – “Intellectual property rights are the rights given to persons over the creations of their minds. They usually give the creator an exclusive right over the use of his/her creation for a certain period of time”. WTO. https://www.wto.org/english/tratop\_e/trips\_e/intel1\_e.htm

For – “used as a function word to indicate an intended goal”. Merriam Webster. <https://www.merriam-webster.com/dictionary/for>

Medicines – “the science or practice of the diagnosis, treatment, and prevention of disease”. Google. <https://www.google.com/search?q=medicines+definition&rlz=1C1CHBF_enUS877US877&oq=medicines+&aqs=chrome.2.69i59l4j69i60l3.1898j0j7&sourceid=chrome&ie=UTF-8>

Counter solvency advocates

<https://www.who.int/intellectualproperty/submissions/Pharmacoevolution.pdf?ua=1>

<https://pubs.acs.org/doi/10.1021/acsmedchemlett.9b00497>

Feldman 19 Robin Feldman 2-11-2019 "‘One-and-done’ for new drugs could cut patent thickets and boost generic competition" <https://www.statnews.com/2019/02/11/drug-patent-protection-one-done/> (Arthur J. Goldberg Distinguished Professor of Law, Albert Abramson ’54 Distinguished Professor of Law Chair, and Director of the Center for Innovation)//SidK + Elmer

I believe that one period of protection **should be enough**. We should make the legal changes necessary to prevent companies **from building patent walls** and piling up mountains of rights. This could be accomplished **by a “one-and-done” approach** for patent protection. Under it, a drug would receive just one period of exclusivity, and no more. The choice of which “one” could be left entirely in the hands of the pharmaceutical company, with the election made when the FDA approves the drug. Perhaps development of the drug went swiftly and smoothly, so the remaining life of one of the drug’s patents is of greatest value. Perhaps development languished, so designation as an orphan drug or some other benefit would bring greater reward. The choice would be up to the company itself, based on its own calculation of the maximum benefit. The result, however, is that a pharmaceutical company chooses whether its period of exclusivity would be a patent, an orphan drug designation, a period of data exclusivity (in which no generic is allowed to use the original drug’s safety and effectiveness data), or something else — but **not all of the above** and more. Consider Suboxone, a combination of buprenorphine and naloxone for treating opioid addiction. The drug’s maker has extended its protection cliff eight times, including obtaining an orphan drug designation, which is intended for drugs that serve only a small number of patients. The drug’s first period of exclusivity ended in 2005, but with the additions its protection now lasts until 2024. That makes almost two additional decades in which the public has borne the burden of monopoly pricing, and access to the medicine may have been constrained. Implementing a one-and-done approach in conjunction with FDA approval underscores the fact that these problems and solutions are designed for pharmaceuticals, not for all types of technologies. That way, one-and-done could be implemented through **legislative changes to the FDA’s drug approval system**, and would apply to patents granted going forward. One-and-done would apply to both patents and exclusivities. A more limited approach, a baby step if you will, would be to invigorate the existing patent obviousness doctrine as a way to cut back on patent tinkering. Obviousness, one of the five standards for patent eligibility, says that inventions that are obvious to an expert or the general public can’t be patented. Either by congressional clarification or judicial interpretation, many pile-on patents could be eliminated with a ruling that the core concept of the additional patent is nothing more than the original formulation. Anything else is merely an obvious adaptation of the core invention, modified with existing technology. As such, the patent would fail for being perfectly obvious. Even without congressional action, a more vigorous and robust application of the existing obviousness doctrine could significantly improve the problem of piled-up patents and patent walls. Pharmaceutical companies have become adept at maneuvering through the system of patent and non-patent rights to create mountains of rights that can be applied, one after another. This behavior lets drug companies keep competitors out of the market and beat them back when they get there. We shouldn’t be surprised at this. Pharmaceutical companies are profit-making entities, after all, that face pressure from their shareholders to produce ever-better results. If we want to change the system, we must change the incentives driving the system. And right now, the incentives for creating patent walls are just too great.

#### Evergreening restricts Generic Patents

Moir and Gleeson 14 Hazel Moir and Deborah Gleeson 11-5-2014 "Explainer: evergreening and how big pharma keeps drug prices high" <https://theconversation.com/explainer-evergreening-and-how-big-pharma-keeps-drug-prices-high-33623> (Adjunct Associate Professor; economics of patents, copyright and other "IP", Australian National University AND Lecturer in Public Health, La Trobe University)//Elmer

Efforts by pharmaceutical companies to extend their patents cost taxpayers millions of dollars each year. In some cases they also mean people are subjected to unnecessary clinical trials. **Big pharma** makes big profits. Their useful new **drugs are patented**, **protecting them from competition** and allowing them to charge high prices. When the patent ends, other companies are allowed to supply the previously patented drug. These are **known as generics**. The prices of generic drugs are much lower than the prices of in-patent drugs – it has been suggested that for widely used drugs price falls can be as much as 95%. Pharmaceutical companies want to get their new products listed on the Pharmaceutical Benefits Scheme (PBS), because they will sell in much higher volumes. Taxpayers have an interest in ensuring that these drugs move from the high in-patent price to the much lower off-patent price as early as possible. On average, a patent provides effective protection from competition for about 14 years. But, of course, **companies** like monopolies and would like to **extend the patent period**. Over the past few decades they have **used** a process known as evergreening to keep generic companies out of the market for longer. How evergreening works **Evergreening** is achieved by seeking extra patents on variations of the original drug – new forms of release, new dosages, new combinations or variations, or new forms. Big pharma refers to this as “lifecycle management”. Even if the patent is dubious, the company can earn more from the higher prices than it pays in legal fees to keep the dubious patent alive. Evergreening is possible because in Australia the standard required to get a patent is very low. Different methods of delivering drugs (such as extended release, for example) have been known for decades. But when one of these known delivery methods is combined with a known drug, the patent office considers this sufficiently inventive to grant a new 20-year patent. Another favourite evergreening strategy is to patent a slight variation of the drug. Brand pharmaceutical companies argue that these “lifecycle management” patents provide improved health outcomes to the community. They meet the (very low) patentability thresholds of novelty and inventiveness. Critics argue that the claimed improved health outcomes are small or non-existent. An evergreening story: from Efexor to Efexor-XR to Pristiq An example is useful. In the case of the depression drug **venlafaxine** (marketed as Efexor), the original version had major side-effects. However, when provided in extended release form these side-effects were substantially reduced. Naturally the extended release form (Efexor-XR) became preferred. Although it might seem obvious to combine venlafaxine with an extended release form to overcome the side-effect problem, the patent office **granted two new patents** for extended release versions of venlafaxine. One of these was written in such a broad form that it **delayed generic entry by two and a half years**, while legal wrangling took place. Eventually the evergreening patent was declared invalid. But the cost to taxpayers of this delay is estimated at $209 million. Pfizer has a second evergreening strategy for venlafaxine. When venlafaxine is taken, the human body converts it to desvenlafaxine. In other words desvenlafaxine is a variant of the original active pharmaceutical ingredient venlafaxine. Clearly the two compounds are closely related. So it is astonishing that desvenlafaxine passed the tests for getting a patent. Desvenlafaxine is marketed as Pristiq. Pristiq entered the market early in the two-and-a-half-year period of legal wrangling over the extended release venlafaxine (Efexor-XR) patent. Pfizer’s marketing of Pristiq in February 2009 was so lavish that it attracted the attention of investigative journalists. Pristiq has no additional benefits for patients. Despite this, during the first six months of 2014 half of prescriptions were written for Pristiq rather than for the clinically identical Efexor-XR. But Pristiq costs between $A22.32 and $A26.50 more than Efexor-XR, depending on the dose. Based on reported prescription volumes in 2013-14, the cost to the taxpayer of doctors prescribing Pristiq rather than Efexor-XR exceeds $21 million a year. Unless generic companies challenge the desvenlafaxine patent, there will be **no generic versions of Pristiq until after August 2023**, when the patent expires.

#### Decks India’s Pharma Industry

Neelakantan 14 Murali Neelakantan 11-11-2014 “Indian Pharmaceutical Industry: Affordable Access to Healthcare for all” https://web.archive.org/web/20150315092713/https://abcmundial.com/en/news/brics/technology/3838-indian-pharmaceutical-industry-affordable-access-healthcare-all/ (consejero general global de Cipla Limited)//Elmer

The story of the Indian pharma sector could well have been like the IT sector if only enough attention was paid to its achievements and the huge impact it has had on healthcare around the world. Unlike other manufacturing or heavy industries in **India**, the **pharma** sector is innovative, widely **acknowledged as making a global impact in** the **treatment** of diseases like HIV AIDS[1] and also able to support the healthcare needs of the world[2]. The fact that Indian factories are licensed to produce 3,685 drugs compared with 3,815 made within the UK suggests that Indian factories meet global quality standards and are able to produce complex drugs.[3] While news of regulators visiting Indian manufacturing facilities and finding fault with processes is widely reported, very little is said about how routine this is. Gerald Heddell, director of inspections, enforcement and standards at the MHRA, stressed that the number of problems identified by regulators in India was in proportion to the volume of medicines they produced. “When we look back over 110 inspections we conducted over the last two years in India, we had significant concerns with 9 or 10 companies,” he said. “That does not represent a statistically higher proportion than in other parts of the world. India stands out because it is just such a big supplier.”[4] The **Indian pharma Industry** **produces** about **20%** [5] **of** the **global generic drugs** **with the US accounting for** nearly **28 per cent of Indian pharmaceutical exports**[6], followed by the European Union at 18 per cent and Africa at over 17 per cent.[7] This should be a clear acknowledgement of the **global leadership that Indian pharma industry has** achieved which would have been impossible without following global quality standards. Another popular criticism of Indian pharma has been that there is insufficient investment in innovation and R&D. Despite over 500 new drugs being discovered by Indian pharma companies during 1985 – 2005, there seems a perception that India thrives on copying foreign products[8]. A recent study by Evaluate[9], a leading independent specialist pharma consultancy, reports that there is little difference in the investment by “innovators” and “generics” and it is just a myth that “innovators” invest heavily in research while “generics” don’t. Despite well publicised claims of the Western world, there seems to be a marked decrease in R&D investments[10] and this trend is expected to continue.[11] When one realises that almost 50% of the European pharma patents are either lying dormant or filed in order to block competitors[12] one wonders how innovation is being defined and encouraged. Is it innovation if the effect is stifling further innovation and competition and creating barriers for improvements? **Indian pharma** industry has clearly demonstrated that it **has** the **potential to be** a part of **the solution** for universal access to healthcare. India’s strength is **innovating** **to improve global access to medicines** as opposed to developing more and more “me too” drugs which have been traditionally defined by the West as innovation. There is now a growing acknowledgment that the existing IPR regime that is being touted by the West doesn’t foster innovation. As such, the current patent system is itself reeling from the ill effects of patent assertion entities (trolls) that do not produce anything of value but merely hold patents with a view to threatening businesses with infringement actions to obtain licensing revenue. Patents have other flaws that relate to monopoly power, both because it harms consumers who have to pay high prices and because it can hinder improvements and subsequent innovations.[13] Static distortions, too little incentive for original research, and wasteful duplication of research are some of the most serious problems of the patent system.[14]In addition to TRIPs - compliant patent regimes which ostensibly promote innovation and discourage copying, the next generation of barriers to competition seems to be set up as global standards. Just as IPR was addressed by the WTO in TRIPs, the more recent barriers are likely to be in the form of harmonised regulations. Patent linkage[15] (in Canada and the US for example) denies access to markets on a mere allegation of patent infringement. Despite the US Supreme Court[16] indicating that patent linkage needs to be reconsidered and access to medicines should not be denied on allegation of patent infringement and recent attempts by Italy to introduce a system of patent linkage resulted in a notice from the European Commission asking for the removal of these provisions from Italian law,[17] patent linkage is a real barrier to competition in healthcare which is beset with unaffordable drugs. Data exclusivity extends the term of monopoly enjoyed by patent holders and keeps out competition and innovation without any benefits to society. This concept does not exist in sectors other than pharma and there seems to be no real rationale for pharma to get special treatment. In fact, data exclusivity raises several ethical and moral issues. Countries have always been allowed to customise their IP policy and regulation based on their unique local conditions. Some countries are more technologically proficient than others, and this distinction may warrant separate norms in areas of technology that they are strong in.[18] Even where harmonisation has been accepted as a concept, like the EU for example, it has been implemented in a manner that is sympathetic to the local conditions of individual countries. India’s strength and expertise lies in developing drugs which are accessible for patients across the globe. India’s stand on IPR regime acknowledges that diverse countries cannot be forced to one uniform regulatory system. This principled stand was recently demonstrated during the Bali round of talks on the Trade Facilitation Agreement.[19] In the background of the Trans Pacific and Trans Atlantic Partnerships being negotiated, India has the opportunity to demonstrate leadership in the global market place by pioneering the opposition to using harmonisation as a proxy for barriers to competition. While the US and its allies may officially oppose India’s view of the IPR regime they have realised that the key to their sustainable development is the ability of government to ensure that healthcare is accessible to everyone, not just the rich. Cost of healthcare has increased significantly causing an alarming number of patients to go off treatment, risk importing counterfeits[20] or in many cases, declare bankruptcy[21]. The issue of access to healthcare in the developing world has, despite some efforts by the UN, The Global Fund, PEPFAR and other aid institutions, not had the impact that it should have. There is a realisation, albeit unarticulated, that Indian Pharma companies have the potential to be, like Indian technology companies averted the y2K crisis, a key element of the solution to world's healthcare crisis. **Now is** a great **opportunity for India to demonstrate leadership** in IPR regimes as more and more countries like South Africa and Brazil are following India’s example.

#### K2 India soft power

Jha 16 Prem Shankar Jha 11-5-2016 “Let India unleash its soft power” <https://www.thehindu.com/opinion/lead/Let-India-unleash-its-soft-power/article13292272.ece> (Writer at the Hindu)//Elmer

And why stop at food grains? In drought-struck regions, contaminated water kills much faster than hunger and takes the very young and the very old first. The **Indian pharmaceuticals** industry **is the envy of the world**, **because it produces and sells** **medicines at a tenth to a thirtieth** of the **retail prices abroad**. **Can Delhi not buttress its** **food aid with medicines** and vitamins? This will give **an entirely new meaning to** the concept of **Soft Power for**, **unlike the West** in its present incarnation, **it would be seeking to build influence by protecting** and preserving, **not destroying**; by expanding peoples' futures instead of ending them in darkness. We have been relatively **slow to realise** our **full potential** for the exercise of soft power. This could be because of our too-ready acceptance of a concept that was created by an American to address American foreign policy concerns. In Joseph Nye's original definition, soft power originated in the capacity to attract others to your country's culture, values and institutions. Indian policymakers have taken this to heart and relied mainly upon India's open society, democratic institutions, lack of aggressive intent and willingness to share the burden of U.N. peacekeeping and policing the global commons, to garner respect and support in the international community. It is only in the last half-decade, as the Westphalian international order crumbled and India's neighbourhood became increasingly unstable, that New Delhi has begun to explore the economic dimensions of ‘soft power' seriously. Afghanistan has been the focus of its initial efforts, and its success is attested to by the threat (irrational though it is) that Pakistan feels from it.

#### Extinction

Kamdar 7, Mira. Planet India: How the fastest growing democracy is transforming America and the world. Simon and Schuster, 2007. (Bernard Schwartz Fellow at the Asia Society in 2008)//Elmer

**No other country matters more to the future of our planet than India**. There is no challenge we face, no opportunity we covet where India does not have critical relevance. **From combating global terror to finding cures for dangerous pandemics, from dealing with the energy crisis to averting the worst scenarios of global warming**, from rebalancing stark global inequalities to spurring the vital innovation needed to create jobs and improve lives—**India is now a pivotal player**. The world is undergoing a process of profound recalibration in which the rise of Asia is the most important factor. India holds the key to this new world. India is at once an ancient Asian civilization, a modern nation grounded in Enlightenment values and democratic institutions, and a rising twenty-first-century power. With a population of 1.2 billion, India is the world’s largest democracy. It is an open, vibrant society. India’s diverse population includes Hindus, Muslims, Sikhs, Christians, Buddhists, Jains, Zoroastrians, Jews, and animists. There are twenty-two official languages in India. Three hundred fifty million Indians speak English. India is the world in microcosm. Its geography encompasses every climate, from snowcapped Himalayas to palm-fringed beaches to deserts where nomads and camels roam. A developing country, India is divided among a tiny affluent minority, a rising middle class, and 800 million people who live on less than $2 per day. India faces all the critical problems of our time—extreme social inequality, employment insecurity, a growing energy crisis, severe water shortages, a degraded environment, global warming, a galloping HIV/AIDS epidemic, terrorist attacks—on a scale that defies the imagination. India’s goal is breathtaking in scope: transform a developing country of more than 1 billion people into a developed nation and global leader by 2020, and do this as a democracy in an era of resource scarcity and environmental degradation. The world has to cheer India on. If India fails, there is a real risk that **our world will become hostage to political chaos, war over dwindling resources, a poisoned environment, and galloping disease**. Wealthy enclaves will employ private companies to supply their needs and private militias to protect them from the poor massing at their gates. But, if India succeeds, it will demonstrate that it is possible to lift hundreds of millions of people out of poverty. It will prove that multiethnic, multireligious democracy is not a luxury for rich societies. It will **show us how to save our environment, and how to manage in a fractious, multipolar world**. India’s gambit is truly the venture of the century.

#### The aff sovles

Stanbrook 13, Matthew B. "Limiting “evergreening” for a better balance of drug innovation incentives." (2013): 939-939. (MD (University of Toronto) PhD (University of Toronto))//Elmer

At issue in the Indian case was “evergreening,” a now widespread practice by the pharmaceutical industry designed to extend the monopoly on an existing drug by modifying it and seeking new patents.2 Currently, half of all drugs patented in Canada have multiple subsequent patents, extending the lifetime of the original patent by about 8 years.3 Manufacturers, in defence of these practices, predictably tout the advantages of new versions of their products, which often represent more potent isomers or salts of the original drugs, longer-lasting formulations or improved delivery systems that make adherence easier or more convenient. But the new versions are by definition “**me too” drugs**, and demonstration that the resulting **incremental benefits** in efficacy and safety are clinically meaningful **is often lacking**. Moreover, the original drugs have often been “blockbusters” used for years to improve the health of millions of patients. It seems hard to argue convincingly why such beneficial drugs require an upgrade, often just before their patents expire. Rather than the marginal benefits accrued from tinkering with already effective agents, patients worldwide are in desperate need of new classes of pharmaceuticals for the great many health conditions for which treatments are presently inadequate or entirely lacking. But developing truly innovative drugs is undeniably a high-risk venture. It is important and necessary that pharmaceutical companies continue to take these risks, because they are usually the only entities with sufficient resources to do so. Therefore, companies must continue to perceive **sufficient incentives** to continue investing in innovation. Indeed, there is evidence that the prospect of future evergreening has become part of the incentive calculation for innovative drug development.4 But surely it is perverse to extend unpredictably a period of patent protection that the government intended to be clearly defined and predictable, and to maintain incentives that drive companies to divert their **drug-development resources away from innovation**. **Current patent legislation may not be optimal** for striking the right balance between encouraging innovation and facilitating profiteering. Given the broad societal importance of patent legislation, ongoing research to enable active governance of this issue should be a national priority. In the last decade, Canada’s laws have been among the friendliest toward evergreening in the world.5 We should now reflect on whether this is really in our national interest. Governments, including Canada’s, would do well to take inspiration from India’s example and tighten regulations that currently facilitate evergreening. This might involve **denying future patents for modifications** that currently would receive one. An overall reduction in the duration of all secondary patents on a therapy might also be considered. Globally, a more flexible and individualized approach to the length of drug patents might be a more effective strategy to align corporate incentives with population health needs. Limits on evergreening would likely reduce the **extensive patent litigation** that contributes to the **high prices of generic drugs** in Canada.3 Reducing economic pressure on generic drug companies may facilitate current provincial initiatives to lower generic drug prices. As opportunities to generate revenue from evergreening are eliminated, research-based pharmaceutical companies would be left with no choice but to invest more in innovative drug development to maintain their profits.

## Add Ons

#### ] Liberation – only a direct approach to absolute sovereignty allows agents to understand the relationship between self-preservation and governance – other systems insist on their own foundations but the aff is a better model for constructing a institution that must interact with its agents.

#### ] Root Cause – conflicts arise between antagonistic positions due to multiple perspectives absent a mediating force. Only the sovereign can recognize different ethical viewpoints and resolve violence.

#### ] Psychology – research shows that evolutionary processes collapse to selfish strategies.

Baillie et al 14 [Katherine Unger Baillie (science news officer at the University of Pennsylvania) cites Alexander J. Stewart (Assistant Professor in the Department of Biology and Biochemistry @ the University of Houston) and Joshua B. Plotkin (Walter H. and Leonore C. Annenberg Professor of Natural Sciences at the University of Pennsylvania). “Penn Team’s Game Theory Analysis Shows How Evolution Favors Cooperation’s Collapse”. Penn Today. November 24, 2014. Accessed 7/29/2021. <https://penntoday.upenn.edu/news/penn-team-s-game-theory-analysis-shows-how-evolution-favors-cooperation-s-collapse> //Xu]

Last year, University of Pennsylvania researchers Alexander J. Stewart and Joshua B. Plotkin published a mathematical explanation for why cooperation and generosity have evolved in nature. Using the classical game theory match-up known as the Prisoner’s Dilemma, they found that generous strategies were the only ones that could persist and succeed in a multi-player, iterated version of the game over the long term. But now they’ve come out with a somewhat less rosy view of evolution. With a new analysis of the Prisoner’s Dilemma played in a large, evolving population, they found that adding more flexibility to the game can allow selfish strategies to be more successful. The work paints a dimmer but likely more realistic view of how cooperation and selfishness balance one another in nature. “It’s a somewhat depressing evolutionary outcome, but it makes intuitive sense,” said Plotkin, a professor in Penn’s Department of Biology in the School of Arts & Sciences, who coauthored the study with Stewart, a postdoctoral researcher in his lab. “We had a nice picture of how evolution can promote cooperation even amongst self-interested agents and indeed it sometimes can, but, when we allow mutations that change the nature of the game, there is a runaway evolutionary process, and suddenly defection becomes the more robust outcome.” Their study, which will appear in the Proceedings of the National Academy of Sciences, examines the outcomes of the Prisoner’s Dilemma, a scenario used in the field of game theory to understand how individuals decide whether to cooperate or not. In the dilemma, if both players cooperate, they both receive a payoff. If one cooperates and the other does not, the cooperating player receives the smallest possible payoff, and the defecting player the largest. If both players do not cooperate, they both receive a payoff, but it is less than what they would gain if both had cooperated. In other words, it pays to cooperate, but it can pay even more to be selfish. Stewart and Plotkin’s previous study examined an iterated and evolutionary version of the Prisoner’s Dilemma, in which a population of players matches up against one another repeatedly. The most successful players “reproduce” more and pass along their winning strategies to the next generation. The researchers found that, in such a scenario, cooperative and even forgiving strategies won out, in part because “cheaters” couldn’t win against themselves. In the new investigation, Stewart and Plotkin added a new twist. Now, not only could players alter their strategy — whether or not they cooperate — but they could also vary the payoffs they receive for cooperating. This, Plotkin said, may more accurately reflect the balancing of risk and reward that occurs in nature, where organisms decide not only how often they cooperate but also the extent to which they cooperate. Initially, as in their earlier study, cooperative strategies found success. “But when cooperative strategies predominate, payoffs will rise as well,” Stewart said. “With higher and higher payoffs at stake, the temptation to defect also rises. In a sense the cooperators are paving the way for their own demise.” Indeed, Stewart and Plotkin found that the population of players reached a tipping point after which defection was the predominant strategy in the population. In a second analysis, they allowed the payoffs to vary outside the order set by the Prisoner’s Dilemma. Instead of unilateral defection winning the greatest reward, for example, it could be that mutual cooperation reaped the greatest payoff, the situation described by a game known as Stag Hunt. Or, mutual defection could generate the lowest possible reward, as described by the game theory model known as the Snowdrift or Hawk-Dove game. What they found was that, again, there was an initial collapse in cooperative strategies. But, as the population continued to play and evolve, players also altered the payoffs so that they were playing a different game, either Snowdrift or Stag Hunt. “So we see complicated dynamics when we allow the full range of payoffs to evolve,” Plotkin said. “One of the interesting results is that the Prisoner’s Dilemma game itself is unstable and is replaced by other games. It is as if evolution would like to avoid the dilemma altogether.” Stewart and Plotkin say their new conception of how strategies and payoffs co-evolve in populations is ripe for testing, with the marine bacteria Vibrionaceae as a potential model. In these bacterial populations, the researchers noted, individuals cooperate by sharing a protein they extrude that allows them to metabolize iron. But the bacteria can possess mutations that alter whether they produce the protein and how much they generate, whether and how much they cooperate, as well as mutations that affect how efficiently they can take up the protein, their payoff. The Penn researchers said a “natural experiment” using these or other microbes could put their theory to the test, to see exactly when and how selfishness can pay off. “After this study, we end up with a less sunny view of the evolution of cooperation,” Stewart said. “But it rings true that it’s not the case that evolution always tends towards happily ever after.”

#### Only innovation now solves AMR super-bugs -- timeframe’s key.

Sobti 19 [Dr. Navjot Kaur Sobti is an internal medicine resident physician at Dartmouth-Hitchcock-Medical Center/Dartmouth School of Medicine and a member of the ABC News Medical Unit. May 1, 2019. “Amid superbug crisis, scientists urge innovation”. <https://abcnews.go.com/Health/amidst-superbug-crisis-scientists-urge-innovation/story?id=62763415>] Dhruv

[The United Nations](https://abcnews.go.com/Politics/amal-clooney-angelina-jolie-speak-us-weighed-vetoing/story?id=62574726) has called antimicrobial resistance a “global crisis.” With the [rise in superbugs](https://abcnews.go.com/Health/superbug-fungus-global-health-threat-600-us-infected/story?id=62297532) across the globe, common infections are becoming harder to treat, and lifesaving procedures riskier to perform. Drug-resistant infections result in about 700,000 deaths per year, with at least 230,000 of those deaths due to multidrug resistant tuberculosis, [according to a groundbreaking report from the World Health Organization (WHO).](https://www.who.int/antimicrobial-resistance/interagency-coordination-group/IACG_final_report_EN.pdf?ua=1) Given that antibiotic resistance is present in every country, antimicrobial resistance (AMR) now represents a global health crisis, according to the UN, which has urged immediate, coordinated and global action to prevent a potentially devastating health and financial crisis. With the rising rates of AMR -- including antivirals, antibiotics, and antifungals -- estimates from the WHO show that AMR may cause 10 million deaths every year by 2050, send 24 million people into extreme poverty by 2030, and lead to a financial crisis as severe as the on the U.S. experienced in 2008. Antimicrobial resistance develops when germs like bacteria and fungi are able to “defeat the drugs designed to kill them,” according to the Centers for Disease Control and Prevention. Through a biologic “survival of the fittest,” germs that are not killed by antimicrobials and continue to grow. WHO explains that “poor infection control, inadequate sanitary conditions and inappropriate food handling encourage the spread” of AMR, which can lead to “superbugs.” Those superbugs require powerful and oftentimes more expensive antimicrobials to treat. Examples of superbugs are far and wide, and can range from drug-resistant bacteria like Pseudomonas aeruginosa and Staphylococcus aureus to fungi like Candida. These bugs can cause illnesses that range from pneumonia to urinary tract and sexually transmitted infections. According to the WHO, AMR has caused complications for nearly 500,000 people with tuberculosis, and a number of people with HIV and malaria. The people at the [highest risk for AMR](https://www.who.int/news-room/detail/27-02-2017-who-publishes-list-of-bacteria-for-which-new-antibiotics-are-urgently-needed) are those with chronic diseases, people living in nursing homes, hospitalized in the ICU or undergoing life-saving treatments such as organ transplantation and cancer therapy. These people often develop infections, which can become antimicrobial-resistant, rendering them difficult, if not impossible, to treat. [(MORE: Melissa Rivers talks about her father's suicide with Dr. Jennifer Ashton)](https://abcnews.go.com/Health/melissa-rivers-talks-fathers-suicide-dr-jennifer-ashton/story?id=62733179&cid=clicksource_26_null_headlines_hed) The CDC notes that “antibiotic resistance has the potential to affect people at any stage of life,” including the “healthcare, veterinary, and agriculture industries, making it one of the world’s most urgent public health problems." AMR can cause prolonged hospital stays, billions of dollars in healthcare costs, disability, and potentially, death. “The most important thing is to understand and embrace the interconnectedness of all of this,” said Dr. Robert Redfield, director of the CDC, in a recent interview with ABC News’ Dr. Jennifer Ashton. It’s not just our countries that are connected.” Research has shown that superbugs like Candida auris “came from multiple places, at the same time. It wasn’t just one organism that [evolved]” in a single location, Redfield added. Given longstanding concerns about antimicrobial misuse leading to AMR, physicians have embraced a medical approach called antibiotic stewardship. This encourages physicians to carefully evaluate which antibiotic is most appropriate for their patient, and discontinue it once it is no longer medically needed. WHO has also highlighted that the inappropriate use of antimicrobials in agriculture -- such as on farms and in animals -- may be an underappreciated cause of AMR. Noting these trends, the WHO has urged for “coordinated action...to minimize the emergence and spread of antimicrobial resistance.” It urges all countries to make national action plans, with a focus on the development of new antimicrobial medications, vaccines, and careful antimicrobial use. Redfield emphasized the importance of vaccination during the global superbug crisis, stating that “the only way we have to eliminate an infection is vaccination.” He added that investing in innovation is key to solving the crisis. While WHO continues to advocate for superbug awareness, they warn that AMR has reversed “a century of progress in health.” The WHO added that “the challenges of antimicrobial resistance” are “not insurmountable,” and that coordinated action will “help to save millions of lives, preserve antimicrobials for generations to come and secure the future from drug-resistant diseases.”

#### Extinction - generic defense doesn’t apply.

Srivatsa 17 Kadiyali Srivatsa 1-12-2017 “Superbug Pandemics and How to Prevent Them” <https://www.the-american-interest.com/2017/01/12/superbug-pandemics-and-how-to-prevent-them/> (doctor, inventor, and publisher. He worked in acute and intensive pediatric care in British hospitals)//Elmer

It is by now no secret that the human species is locked in a race of its own making with “superbugs.” Indeed, if popular science fiction is a measure of awareness, the theme has pervaded English-language literature from Michael Crichton’s 1969 Andromeda Strain all the way to Emily St. John Mandel’s 2014 Station Eleven and beyond. By a combination of massive inadvertence and what can only be called stupidity, we must now invent new and effective antibiotics faster than deadly bacteria evolve—and regrettably, they are rapidly doing so with our help. I do not exclude the possibility that bad actors might deliberately engineer deadly superbugs.1 But even if that does not happen, humanity faces an existential threat largely of its own making in the absence of malign intentions. As threats go, this one is entirely predictable. The concept of a “black swan,” Nassim Nicholas Taleb’s term for low-probability but high-impact events, has become widely known in recent years. Taleb did not invent the concept; he only gave it a catchy name to help mainly business executives who know little of statistics or probability. Many have embraced the “black swan” label the way children embrace holiday gifts, which are often bobbles of little value, except to them. But the threat of inadvertent pandemics is not a “black swan” because its probability is not low. If one likes catchy labels, it better fits the term “gray rhino,” which, explains Michele Wucker, is a high-probability, high-impact event that people manage to ignore anyway for a raft of social-psychological reasons.2 A pandemic is a quintessential gray rhino, for it is no longer a matter of if but of when it will challenge us—and of how prepared we are to deal with it when it happens. We have certainly been warned. The curse we have created was understood as a possibility from the very outset, when seventy years ago Sir Alexander Fleming, the discoverer of penicillin, predicted antibiotic resistance. When interviewed for a 2015 article, “The Most Predictable Disaster in the History of the Human Race, ” Bill Gates pointed out that one of the costliest disasters of the 20th century, worse even than World War I, was the Spanish Flu pandemic of 1918-19. As the author of the article, Ezra Klein, put it: “No one can say we weren’t warned. And warned. And warned. A pandemic disease is the most predictable catastrophe in the history of the human race, if only because it has happened to the human race so many, many times before.”3 Even with effective new medicines, if we can devise them, we must contain outbreaks of bacterial disease fast, lest they get out of control. In other words, we have a social-organizational challenge before us as well as a strictly medical one. That means getting sufficient amounts of medicine into the right hands and in the right places, but it also means educating people and enabling them to communicate with each other to prevent any outbreak from spreading widely. Responsible governments and cooperative organizations have options in that regard, but even individuals can contribute something. To that end, as a medical doctor I have created a computer app that promises to be useful in that regard—of which more in a moment. But first let us review the situation, for while it has become well known to many people, there is a general resistance to acknowledging the severity and imminence of the danger. What Are the Problems? Bacteria are among the oldest living things on the planet. They are masters of survival and can be found everywhere. Billions of them live on and in every one of us, many of them helping our bodies to run smoothly and stay healthy. Most bacteria that are not helpful to us are at least harmless, but some are not. They invade our cells, spread quickly, and cause havoc that we refer to generically as disease. Millions of people used to die every year as a result of bacterial infections, until we developed antibiotics. These wonder drugs revolutionized medicine, but one can have too much of a good thing. Doctors have used antibiotics recklessly, prescribing them for just about everything, and in the process helped to create strains of bacteria that are resistant to the medicines we have. We even give antibiotics to cattle that are not sick and use them to fatten chickens. Companies large and small still mindlessly market antimicrobial products for hands and home, claiming that they kill bacteria and viruses. They do more harm than good because the low concentrations of antimicrobials that these products contain tend to kill friendly bacteria (not viruses at all), and so clear the way for the mass multiplication of surviving unfriendly bacteria. Perhaps even worse, hospitals have deployed antimicrobial products on an industrial scale for a long time now, the result being a sharp rise in iatrogenic bacterial illnesses. Overuse of antibiotics and commercial products containing them has helped superbugs to evolve. We now increasingly face microorganisms that cannot be killed by antibiotics, antifungals, antivirals, or any other chemical weapon we throw at them. Pandemics are the major risk we run as a result, but it is not the only one. Overuse of antibiotics by doctors, homemakers, and hospital managers could mean that, in the not-too-distant future, something as simple as a minor cut could again become life-threatening if it becomes infected. Few non-medical professionals are aware that antibiotics are the foundation on which nearly all of modern medicine rests. Cancer therapy, organ transplants, surgeries minor and major, and even childbirth all rely on antibiotics to prevent infections. If infections become untreatable we stand to lose most of the medical advances we have made over the past fifty years. And the problem is already here. In the summer of 2011, a 43-year-old woman with complications from a lung transplant was transferred from a New York City hospital to the Clinical Center at the National Institutes of Health (NIH), in Bethesda, Maryland. She had a highly resistant superbug known as Klebsiella pneumoniae carbapenemase (KPC). The patient was treated and eventually discharged after doctors concluded that they had contained the infection. A few weeks later, a 34-year-old man with a tumor and no known link to the woman contracted KPC while at the hospital. During the course of the next few months, several more NIH patients presented with KPC. Doctors attacked the outbreak with combinations of antibiotics, including a supposedly powerful experimental drug. A separate intensive care unit for KPC patients was set up and robots disinfected empty rooms, but the infection still spread beyond the intensive care area. Several patients died and then suddenly all was silent on the KPC front, with doctors convinced they had seen the last of the dangerous bacterium. They couldn’t have been more mistaken. A year later, a young man with complications from a bone marrow transplant arrived at NIH. He became infected with KPC and died. This superbug is now present in hospitals in most, if not all U.S. states. This is not good. This past year an outbreak of CRE (carbapenem-resistant enterobacteriaceae) linked to contaminated medical equipment infected 11 patients and killed two in Los Angeles area hospitals. This family of bacteria has evolved resistance to all antibiotics, including the powerful carbapenem antibiotics that are often used as a last resort against serious infections. They are now so resilient that it is virtually impossible to remove them from medical tools such as catheters and breathing tubes placed into the body, even after cleaning. Then we have gonorrhea, chlamydia, and other sexually transmitted diseases that we cannot treat and that are spreading all over the world. Anyone who has sex can catch these infections, and because most people may not exhibit any symptoms they spread infections without anyone knowing about it. Sexually transmitted diseases used to be treatable with antibiotics, but in recent years we have witnessed the rise of multi-drug resistant STDs. Untreated gonorrhea can lead to infertility in men and women and blindness and other congenital defect in babies. As is well known, too, we have witnessed many cases of drug-resistant pneumonia. These problems have arisen in part because of simple mistakes healthcare professionals repeatedly make. Let me explain. Neither superbugs nor common bacterial infections produce any special symptoms indicative of their cause. Rashes, fevers, sneezing, runny noses, ear pain, diarrhea, vomiting, coughing, fatigue, and weakness are signs of common and minor illnesses as well as uncommonly deadly ones. Therefore, the major problem for clinicians is to identify a common symptom that may potentially be an early sign of a major infection that could result in an epidemic. We know that dangerous infections in any given geographical area do not start at the same time. They start with one victim and gradually spread. But that victim is only one among hundreds of patients a doctor will typically see, so many doctors will miss patients presenting with infections that are serious. They will probably identify diseases that kill fast, but slow-spreading infections such as skin infections that can lead to septicemia are rarely diagnosed early. In addition, I have seen doctors treating eczema with antibiotic cream, even though they know that bacteria are resistant to the majority of these drugs. This sort of action encourages simple infections to spread locally, because patients are therefore not instructed to take other, more useful precautions. On top of that, some people are frivolous about infections and assume doctors are exaggerating the threat. And some people are selfish. Once I was called to see a passenger during a flight who had symptoms consistent with infection. He boarded the plane with these symptoms, but began to feel much worse during the flight. I was scared, knowing how infections such as Ebola can spread. This made me think about a way to screen passengers before they board a flight. Airlines could refund a traveler’s ticket, or issue a replacement, in case of sickness—which is not the policy now. We currently have no method to block infectious travelers from boarding flights, and there are no changes in the incentive system to enable conscientious passengers to avoid losing their money if they responsibly miss a flight because of illness. Speaking of selfishness, I once saw a mother drop her daughter off at school with a serious bout of impetigo on her face. When I asked her why she had brought her daughter to school with a contagious infection, she said she could not spare the time to keep her at home or take her to the doctor. By allowing this child to contact other children, a simple infection can become a major threat. Fortunately, I could see the rash on the girl’s face, but other kids in schools may have rashes we cannot see. Incorrect diagnosis of skin problems and mistaken use of antibiotics to treat them is common all over the world, and so we are continually creating superbugs in our communities. Similarly, chest infections, sore throats, and illnesses diagnosed as colds that unnecessarily treated with antibiotics are also a major threat. By prescribing antibiotics for viral infections, we are not only helping bacteria develop resistance, but we are also polluting the environment when these drugs are passed in urine and feces. All of this helps resistant bacteria to spread in the community and become an epidemic. Ebola is very difficult to transmit because people who are contagious have visible and unusual symptoms. However, the emerging infections and pandemics of the future may not have visible symptoms, and they could break out in highly populous countries such as India and China that send thousands of travelers all over the world every day. When a person is infected with a contagious disease, he or she can expect to pass the illness on to an average of two people. This is called the “reproduction number.” Two is not that high a number as these things go; some diseases have far greater rates of infection. The SARS virus had a reproduction number of four. Measles has a reproduction number of 18. One person traveling as an airplane passenger and carrying an infection similar to Ebola can infect three to five people sitting nearby, ten if he or she walks to the toilet. The study that highlighted this was published in a medical journal a few years ago, but the airline industry has not implemented any changes or introduced screening to prevent the spread of infections by air travel passengers, a major vehicle for the rapid spread of disease. It is scary to think that nobody knows what will happen when the world faces a lethal disease we’re not used to, perhaps with a reproduction number of five or eight or even ten. What if it starts in a megacity? What if, unlike Ebola, it’s contagious before patients show obvious symptoms? Past experience isn’t comforting. In 2009, H1N1 flu spread around the world before we even knew it existed. The Questions Remains Why do seemingly intelligent people repeatedly do such collectively stupid things? How did we allow this to happen? The answer is disarmingly simple. It is because people are incentivized to prioritize short-term benefits over long-term considerations. It is what social scientists have called a “logic of collective action” problem. Everyone has his or her specialized niche interest: doctors their patients’ approval, business and airline executives their shareholders’ earnings, hospitals their reputations for best-practice hygienics, homemakers their obligation to keep their own families from illness. But no one owns the longer-term consequences for hundreds of millions of people who are irrelevant to satisfying these short-term concerns. Here is an example. At a recent Superbug Super Drug conference in London that I attended, scientists, health agencies, and pharmaceutical companies were vastly more concerned with investing millions of dollars in efforts to invent another antibiotic, claiming that this has to be the way forward. Money was the most pressing issue because, as everyone at the conference knew, for many years pharmaceutical companies have been pulling back from antibiotics research because they can’t see a profit in it. Development costs run into billions of dollars, yet there is no guarantee that any new drug will successfully fight infections. At the same conference Dr. Lloyd Czaplewski spoke about alternatives to antibiotics, in case we cannot come up with new ones fast enough to outrun superbug evolution. But he omitted mention of preventive strategies that use the internet or communication software to help reduce the spread of infections among families, communities, and countries. It is madness that we don’t have a concrete second-best alternative to new antibiotics, because we need them and we need them quickly. Of course, this is why we have governments, which have been known occasionally in the past as commonwealths. Governments are supposed to look out for the wider, common interests of society that niche-interested professionals take no responsibility for, and that includes public health. It is why nearly every nation’s government has an official who is analogous to the U.S. Surgeon General, and nearly every one has a public health service of some kind. Alas, national governments do not always function as they should. Several years ago physician and former Republican Senator Bill Frist submitted a proposal to the Senate for a U.S. Medical Expeditionary Corps. This would have been a specialized organization that could coordinate and execute rapid responses to global health emergencies such as Ebola. Nothing came of it, because Dr. Frist’s fellow politicians were either too shortsighted or too dimwitted to understand why it was a good idea. Or perhaps they simply realized that they could not benefit politically from supporting it. Plenty of mistakes continue to be made. In 2015, a particularly infectious form of bird flu ripped through 14 U.S. states, leading farmers to preventively slaughter nearly 40 million birds. The result of such callous and unnecessary acts is that, instead of exhausting themselves in the host population of birds, the viruses quickly find alternative hosts in which to survive, and could therefore easily mutate into a form that can infect humans. Earlier, during the 1980s, AIDS garnered more public attention because a handful of rich and famous people were infected, and because the campaign to eradicate it dovetailed with and boosted the political campaign on behalf of homosexual rights. Methicillin resistant Staphylococcus aureus (MRSA) in hospitals, by far the bigger threat at the time, was virtually ignored. Some doctors knew that MRSA would bring us to our knees and kill millions of people worldwide, but pharmaceutical companies and device and equipment manufacturers ignored these doctors and the thousands of patients dying in hospitals as a result of MRSA. They prioritized the wrong thing, and government did not correct the error. And that is partly how antibiotic-resistant infection went from an obscure hospital problem to an incipient global pandemic. Politics well outside the United States plays several other roles in the budding problem that we are confronting. Countries often will not admit they have a problem and request help because of the possible financial implications in terms of investment and travel. Guinea did not declare the Ebola epidemic early on and Chinese leaders, worried about trade and tourism, lied for months in 2002 about the presence of the SARS virus. In 2004, when avian influenza first surfaced in Thailand, officials there displayed a similar reluctance to release information. Hospitals in some countries, including India, are managed and often owned by doctors. They refuse to share information about existing infections and often categorically deny they have a problem. Reporting infections to public health authorities is not mandatory, and so hospitals that fail to say anything are not penalized. Even now, the WHO and the CDC do not have accurate and up-to-date information about the spread of E. coli or other infections, and part of the reason is that for-profit hospitals are reluctant to do anything to diminish their bottom line. Syria and Yemen are among those countries that are so weak and fragmented that they cannot effectively coordinate public healthcare. But their governments are also hostile to external organizations that offer relief. Part of the reason is xenophobia, but part is that this makes the government look bad. Relatedly, most poor-nation governments do not trust the efficacy of international institutions, and think that cooperating with them amounts to a re-importation of imperialism. They would rather their own people suffer and die than ask for needed help. That brings us to the level of international public health governance. Alas, sometimes poor-country governments estimate the efficacy of international institutions accurately. The WHO’s Ebola response in 2014-15 was a disaster. The organization was slow to declare a public health emergency even after public warnings from Médecins Sans Frontières, some of whose doctors had already died on the front line. The outbreak killed more than 28,000 people, far more than would have been the case had it been quickly identified. This isn’t just an issue of bureaucratic incompetence. The WHO is under-resourced for the problems it is meant to solve. Funding comes from voluntary donations, and there is no mechanism by which it can quickly scale up its efforts during an emergency. The result is that its response to the next major disease outbreak is likely to be as inadequate as were its responses to Ebola, H1N1, and SARS. Stakeholders admit that we need another mechanism, and most experts agree that the world needs some kind of emergency response team for dangerous diseases. But no one knows how to set one up amid the dysfunctional global governance structures that presently exist. Maybe they should turn to Bill Frist, whose basic concept was sound; if the U.S. government will not act, perhaps some other governments will, and use the UN system to do so. But as things stand, we lack a health equivalent of the military reserve. Neither government leaders nor doctors can mobilize a team of experts to contain infections. People who want to volunteer, whether for government or NGO efforts, are not paid and the rules, if any, are sketchy about what we do with them when they return from a mission. Are employers going to take them back? What are the quarantine rules? It is all completely ad hoc, meaning that humanity lacks the tools it needs to protect itself. And note, by the way, the contrast between how governments prepare for facing pandemics and how they prepare for making war. War is not more deadly to the human race than pandemics, but national defense against armed aggression is much better planned for than defense against threats to public health. There is a wealth of rules regarding it, too. Human beings study and plan for war, which kills people both deliberately and accidentally, but they do not invest comparable effort planning for pandemics, which are liable to kill orders of magnitude more people. To the mind of a medical doctor, this is strange. Creating Conditions for Infections to Spread Superbug infections spread for several interlocking reasons. Some are medical-epidemiological. Most of the infections of the past thirty years have started in one place and in one family. As already noted, they spread because many infectious diseases are highly contagious before the onset of symptoms, and because it is difficult to prevent patients who know they are sick from going to hospitals, work, and school, or from traveling further afield. But again, one reason for the problem is political, not medical. Many governments have no strategies in place to prevent pandemics because they are unwilling to tell their people how infections spread. They don’t want to worry people with such talk; it will make them, they fear, unpopular. So governments may have mountains of bureaucracy with great heaps of rules and regulations concerning public health, but they are generally unwilling to trust their own citizens to use common sense on their own behalf. This, too, seems very strange. Until now, no one has come forward to help us develop strategies to educate people how to identify and prevent the spread of infection to their families and communities. The majority of stakeholders have also been oblivious to the use of new technologies to help reduce the spread of these infections. There are some exceptions. In a fun blog post called Preparedness 101: Zombie Apocalypse, the CDC uses the threat of a zombie outbreak as a metaphor to encourage people to prepare for emergencies, including pandemics. It is well meaning and insightful, yet when my colleagues and I try to discuss ways of scaling up the CDC’s example with doctors and nurses, they shut down. Nobody plans for an actual crisis partly because it is too scary and hence paralyzing to think about. But it is also because it is not most health professionals’ job; it is not what they are trained and paid to do. It is always someone else’s job, except that it has turned out to be nobody’s job. Worse, the situation is not static. While we sit paralyzed, superbugs are evolving. Epidemiological models now predict how an algorithmic process of disease spread will move through the modern world. All urban centers around the entire globe can become infected within sixty days because we move around and cross borders much more than our ancestors did, thanks to air travel. A new pandemic could start crossing borders before we even know it exists. A flu-like disease could kill more than 33 million people in 250 days.3