### 1AC - FW

#### The Meta-Ethic is Moral Pluralism; Clashing viewpoints does not require the exclusion of one over another but instead the acceptance that both can be valuable ethical tools. Prefer

#### 1] Empirics- Subjectivity is inescapable

Pölzler and Wright 19[Thomas Pölzler and Jennifer Cole Wright- “Empirical research on folk moral objectivism” <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6686698/> NCBI. Published July 5th 2019]

Examining these studies' results more closely, however, makes it less clear whether this interpretation is appropriate (Pölzler, 2018b). Take again Goodwin and Darley's study. In this study, almost 30% of subjects' responses to the disagreement measure and almost 50% of their responses to the truth‐aptness measure fell on the option that the researchers took to be indicative of subjectivism (Goodwin & Darley, 2008, pp. 1347, 1351). Moreover, while some moral statements were dominantly classified as objective (e.g., the above statement about robbery), many others were dominantly classified as nonobjective (e.g., the stem cell research statement). This suggests that subjects in Goodwin and Darley's study may have actually favored what Wright, Grandjean, and McWhite (2013) called “metaethical pluralism,” i.e., they sometimes sided with objectivism and other times with nonobjectivism. More recent studies have by and large confirmed this hypothesis of folk metaethical pluralism. Wright et al. (2013) and Wright, McWhite, and Grandjean (2014), for example, replicated Goodwin and Darley's results, using the exact same measures, but letting subjects classify the presented statements as moral and nonmoral themselves. Objectivity ratings for statements that were dominantly self‐classified as moral varied between as little as 5% and as much as 85%. Research based on different measures yielded high proportions of intrapersonal variation as well (e.g., Beebe, 2014; Beebe, Qiaoan, Wysocki, & Endara, 2015; Beebe & Sackris, 2016; Fisher, Knobe, Strickland, & Keil, 2017; Goodwin & Darley, 2012; Heiphetz & Young, 2017; Wright, 2018; Zijlstra, forthcoming‐a).2

#### 2] The rules of logic claim that the only time a statement is invalid is if the antecedent is true, but the consequent is false.

SEP [Stanford Encyclopedia of Philosophy.] “An Introduction to Philosophy.” Stanford University. <https://web.stanford.edu/~bobonich/dictionary/dictionary.html> TG Massa

Conditional statement: an “if p, then q” compound statement (ex. If I throw this ball into the air, it will come down); p is called the antecedent, and q is the consequent. A conditional asserts that if its antecedent is true, its consequent is also true; any conditional with a true antecedent and a false consequent must be false.  For any other combination of true and false antecedents and consequents, the conditional statement is true.

#### If the aff is winning, they get the ballot is a tacit ballot conditional which means denying the premise proves the conclusion that I should get the ballot.

#### 3] Principle of explosion is true.

**Wikiwand**. “Principle of Explosion.” Wikiwand, 0AD, [www.wikiwand.com/en/Principle\_of\_explosion](http://www.wikiwand.com/en/Principle_of_explosion). //Massa

A screenshot of a cell phone

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The principle of explosion (Latin: ex falso (sequitur) quodlibet (EFQ), "from falsehood, anything (follows)", or ex contradictione (sequitur) quodlibet (ECQ), **"from contradiction, anything (follows)"), or the principle of**[**Pseudo-Scotus**](https://www.wikiwand.com/en/Pseudo-Scotus), is the law of [classical logic](https://www.wikiwand.com/en/Classical_logic), [intuitionistic logic](https://www.wikiwand.com/en/Intuitionistic_logic) and similar logical systems, according to which any statement can be proven from a contradiction.[[1]](https://www.wikiwand.com/en/Principle_of_explosion#citenote1) That is, once a contradiction has been asserted, any proposition (including their negations) can be inferred from it. This is known as **deductive explosion**.[[2]](https://www.wikiwand.com/en/Principle_of_explosion#citenote2)[[3]](https://www.wikiwand.com/en/Principle_of_explosion#citenote3) The proof of this principle was first given by 12th century French philosopher [William of Soissons](https://www.wikiwand.com/en/William_of_Soissons).[[4]](https://www.wikiwand.com/en/Principle_of_explosion#citenote4)

As a demonstration of the principle, **consider two contradictory statements – "All lemons are yellow" and "Not all lemons are yellow"**, and suppose that both are true. If that is the case, **anything can be proven**, e.g., **the assertion that "unicorns exist", by using the following argument:**

1. We know that **"All lemons are yellow"**, as it **has been assumed to be true.**
2. **Therefore**, the two-part statement **"All lemons are yellow OR unicorns exist” must also be true**, since the first part is true.
3. However, **since we know that "Not all lemons are yellow"** (as this has been assumed), **the first part is false, and hence the second part must be true, i.e., unicorns exist.**

#### 4] Dogmatism Paradox

Sorensen Sorensen, Roy, Professor of Philosophy at Washington University in St. Louis. "Epistemic Paradoxes.” Stanford Encyclopedia of Philosophy. 21 June 2006. <https://plato.stanford.edu/entries/epistemic-paradoxes/>. PeteZ

Saul Kripke’s ruminations on the surprise test paradox led him to a paradox about dogmatism. He lectured on both paradoxes at Cambridge University to the Moral Sciences Club in 1972. (A descendent of this lecture now appears as Kripke 2011). Gilbert Harman transmitted Kripke’s new paradox as follows:

If I know that h is true, I know that any evidence against h is evidence against something that is true; I know that such evidence is misleading. But I should disregard evidence that I know is misleading. So, once I know that h is true, I am in a position to disregard any future evidence that seems to tell against h. (1973, 148)

#### 5] Vote aff because it’s simple – evaluating responses to this is complicated so don’t

Baker 04’ [Baker, Alan, 10-29-2004, "Simplicity (Stanford Encyclopedia of Philosophy)," <https://plato.stanford.edu/entries/simplicity/>]

With respect to question (ii), there is an important distinction to be made between two sorts of simplicity principle. Occam's Razor may be formulated as an epistemic principle: if theory T is simpler than theory T\*, then it is rational (other things being equal) to believe T rather than T\*. Or it may be formulated as a methodological principle: if T is simpler than T\* then it is rational to adopt T as one's working theory for scientific purposes. These two conceptions of Occam's Razor require different sorts of justification in answer to question (iii). In analyzing simplicity, it can be difficult to keep its two facets—elegance and parsimony—apart. Principles such as Occam's Razor are frequently stated in a way which is ambiguous between the two notions, for example, “Don't multiply postulations beyond necessity.” Here it is unclear whether ‘postulation’ refers to the entities being postulated, or the hypotheses which are doing the postulating, or both. The first reading corresponds to parsimony, the second to elegance. Examples of both sorts of simplicity principle can be found in the quotations given earlier in this section.

#### 6] A trivial entity exists

**Kabay 08** [Paul Douglas Kabay, (PhD thesis, School of Philosophy, Anthropology, and Social Inquiry) "A Defense Of Trivialism" The University Of Melbourne, 2008, https://minerva-access.unimelb.edu.au/handle/11343/35203, DOA:10-25-2017]

Let us define a trivial entity as an entity that instantiates every predicate, i.e. an entity of which **everything is true.** One of the things true of **a trivial entity** is that it **exists in a reality in which trivialism is true. Hence, if a trivial entity exists, then trivialism is true.** But is it true that there exists a trivial entity? Here is an argument for thinking that it is true: **1) Every being (or entity or object) is either trivial or nontrivial 2) It is not the case that every being is nontrivial 3) Hence, there exists a trivial being**

#### 7] Negative arguments presuppose the aff being true since they begin with a descriptive premise about the affirmative such as the aff does x, and then justify why x is bad. However, if the aff does not have truth value, that entails the descriptive premise would also not have truth value, which is contradictory.

#### **Only a pragmatic deliberative model accepts ongoing confrontation as legitimate rather than oppositional.** Thus, the standard is promoting pragmatic deliberation.

Serra 1 [Juan Pablo Serra. What Is and What Should Pragmatic Ethics Be? Some Remarks on Recent Scholarship. EUROPEAN JOURNAL OF PRAGMATISM AND AMERICAN PHILOSOPHY. 2009. Francisco de Vitoria College, Humanities Department, Faculty member]

This separation of theory and practice runs parallel to another split, namely, that of ethics and morals or, better put, of ethical theory and moral practice. Peirce denies that morality is subject to rationality and thinks that ethicsisvaluable as a science in a broad sense. But he also regards ethics as a science which bears on human conduct only indirectly, through the examination of past actions and the self-correction of the self in view of future action. In addition, ethics would be a normative knowledge only in so far as it analyzes the adjustment of actions to ends and in so far as it studies the general way in which a good life can be lived. In morals Peirce appeals to instinct and sentiment, and in ethics he recommends the use of logical thinking —just as scientists do. However, even within the framework of his system, it’s not obvious that scientists may so easily set aside their instincts —in fact, instinct (or ‘rational instinct’ as he called it in 1908) plays a significant role in the economy of re- search. Moreover, the statement that in moral issues there may be no possibility of carrying out an inquiry that is truth-oriented is not an uncontroversial one. After all, moralinquiryisperformedin a deliberativeway**,** weighing up argumentations, beliefs andprinciples**,** andcomparingthem either with their probable or conceivable consequences or with lived as well as possible experiencesthatcan be forceful or impingeuponthe deliberative subject in such a way as to acquire the compulsory resistance due to reality. As Misak puts it succint- ly, “the practice of moral deliberation is responsive to experience, reason, argument, and thought experiments... Suchresponsivenessispartofwhatitistomakea moral decision and part of what it is to try to live a moral life” (2000: 52)3. Likewise, this same deliberativeactivityimpliesanefforttoacquirehabits**,** beliefs and principles thatcontributeto a truly freedeliberation which, in turn, can result in creative conclusions. For Peirce, as you get more habit-governed, you become more creative and free, and your selfhood acquires plas- ticity and receptiveness to experience4. Vincent Colapietro has referred to Peirce’s description of human reason in terms of a deliberative rationality (1999: 24). Also, in another place he has explained that deliberation for Peirce is a process of preparation for future action which has to do with the checking of previous acts, the rehearsal in imagination of different roads to be followed by possible conduct and the nurturing of ideals (Colapietro 1997: 270, 281). It is precisely this experi- ment carried out within imagination that generates habits, because, as Peirce says in “A Survey of Pragmaticism”, “it is not the muscular action but the accompanying inward ef- forts, the acts of imagination, that produce the habit” (CP 5.479, 1907). Habits are regular ways of thinking, perceiving and interpreting that generate actions. As such, habits have a huge influence on human behavior, manifest themselves in the con- crete things we do and, at the same time, are formed within those same activities. Even more, according to Peirce, theactivitytakes the formofexperimentation in the inner world; and the conclusion (if it comes to a definite conclusion), is that under given conditions, the interpreter will have formed the habit of acting in a given way whenever he may desire a given kind of result. The real and living logical conclusionisthat habit (CP 5.491, 1907). Much more evidence could be given to support the view that habits are virtually decided (CP 2.435, c.1893) and also that intelligence comprises inward or potential actions that in- fluence the formation of habits (CP 6.286, 1893). Suffice it to say that, according to Peirce, deliberation is a function of the imagination, and that imagination is in itself an experiment which may have unexpected consequences that impose themselves upon the deliberative subject.

#### Additionally prefer

#### 1] Performativity- Responding to our framework concedes the validity of pragmatism since that in and of itself is a process of contestation that pragmatism would say is valuable and necessary for spaces like debate to function.

#### 2] TJFS- A] Inclusion – Pragmatism definitionally is a procedural for allowing almost any argumentation in the debate space which controls the internal link to inclusion which is an impact multiplier B] Resource Disparities- Discursive frameworks ensure big squads don’t have a comparative advantage since debates become about quality of arguments rather than quantity and require a higher level of analytic thinking that small schools have.

#### 3] Value – procedural decisions have infinite value because they allow agents to take steps to reduce harms under any index. To shut down an avenue for pragmatic discourse necessitates foreclosing all possible decisions in that situation except a static theory we can’t change. Kills the net most value – alternative theories with massive impacts can’t be considered.

#### 4] Value Pluralism- Other ethical theories rely on minimalistic criteria as their foundation, our framework resolves this by using these criteria to better inform our judgments LaFollete 2K "Pragmatic Ethics" [Hugh LaFollette](http://www.hughlafollette.com/index.htm) In [Blackwell Guide to Ethical Theory](http://www.hughlafollette.com/papers/b-guide.htm) 2000. Hugh LaFollette is Marie E. and Leslie Cole Professor in Ethics at the University of South Florida St. Petersburg. He is editor-in-chief of The International Encyclopedia of Ethics

Employs criteria, but is not criterial The previous discussions enable us to say more precisely why pragmatists reject a criterial view of morality. Pragmatism's core contention that practiceis primary in philosophy rulesoutthe hope of logically prior criteria. Any meaningful criteria evolve from our attempt to live morally – in deciding what is the best action in the circumstances. Criteriaare not discovered by pure reason, and they arenotfixed. As ends of action, they are always revisable. Asweobtainnewevidenceabout ourselves and our world, and as our worlds changes, wefindthat whatwasappropriatefor the old environment maynotbeconduciveto survival in thenew one. A style of teaching that might have been ideal for one kind institution (a progressive liberal arts college) at one time (the 60s) may be wholly ineffective in another institution (a regional state university) at another time (the 80s). But that is exactly what we would expect of an evolutionary ethic. Neither could criteria be complete. Themoralworldiscomplexandchangeable**.** No set of criteriacouldgiveusunivocalanswersabouthowwe should behave in all circumstances**.** If we cannot develop an algorithm for winning at chess, where there are only eighteen first moves, there is no way to develop an algorithm for living, which has a finitely large number of "first moves." Moreover, while the chess environment (the rules) stays constant, our natural and moral environments do not. We must adapt or fail. While there is always one end of chess -- the game ends when one player wins – the ends of life change as we grow, and asour environmentschange. Finally, we cannot resolve practical moral questions simply by applying criteria. We do not make personal or profession decisions by applying fixed, complete criteria. Why should we assume we should make moral decisions that way? Appropriates insights from other ethical theories Nonetheless, there is a perfectly good sense in which a pragmatic ethic employs what we might call criteria, but their nature and role dramatically differ from that in a criterial morality (Dewey 1985/1932) . Pragmaticcriteriaare not external rules we apply, but aretoolsweuseinmakinginformedjudgements. They embody learning from previous action, they express our tentative efforts to isolate morally relevant features of those actions. These emergentcriteriacanbecomeintegratedinto our habits**,** thereby informingthe waysthat wereactto, think about, and imagine ourworldsand our relations to others. This explains why pragmatists think other theories can provide guidance on how to live morally. Standard moral theories err not because they offer silly moral advice, but because they misunderstand that advice. Othermoral theoriescan help us isolate(and habitually focus on) morallyrelevantfeaturesof action. And pragmatists take help wherever they can get it. Utilitarianism does not provide an algorithm for deciding how to act, but it shapes habits to help us "naturally" attend to the ways that our actions impact others. Deontology does not provide a list of general rules to follow, but it sensitizes us to ways our actions might promote or undermine respect for others. Contractarianism does not resolve all moral issues, but it sensitizes us to the need for broad consensus. That is why it is mistaken to suppose that the pragmatist makes specific moral judgements oblivious to rules, principles, virtues, and the collective wisdom of human experience. The pragmatist absorbs these insights into her habits, and thereby shapes how she habitually responds, and how she habitually deliberates when deliberation is required. This also explains why criterial moralities tend to be minimalistic. They specify minimal sets of rules to follow in order to be moral. Pragmatism, on the other hand, like virtue theories, is more concerned to emphasize exemplary behavior – to use morally relevant features of action to determine the best way to behave, not the minimally tolerable way.

#### 5] Rule Following Paradox- There is nothing inherent to a rule that tells us how we ought to follow it, regardless of how correct the rule is. Only deliberation accounts for the diversity of interpretations of our norms.

#### **6]** Resolves Skepticism- a) Discussion between many bodies means that moral uncertainty can be deliberated and resolved. b) Truth only makes sense in groups of people so only they can prescribe action

#### 7] Actor Specificity- Governments follow agonistic procedures all the time because they try to include voices and resemble the interests of all of their citizens

#### 8] Hijacks any ethical theory- if your framework is really key to morality then we would come to that conclusion after deliberation

### Offense

#### Plan – Resolved: The member nations of the World Trade Organization ought to reduce secondary patent protections for medicines

Implementation: a one-and-done approach for patent protection.

What type of intellectual property protections: secondary patent protections

To what degree: Only secondary groups can patent new developments on existing drugs

#### 1] Reducing IP is a method of global solidarity by manifesting intra-country cooperation.

Jecker and Atuire 7/7 [Nancy S Jecker (professor of bioethics and philosophy at the University of Washington School of Medicine, Department of Bioethics and Humanities) and Caesar A Atuire (PhD in Philosophy from the Athenaeum Regina Apostolorum, Rome, Lecturer in the Department of Philosophy and Classics at the University of Ghana, Legon). “What’s yours is ours: waiving intellectual property protections for COVID-19 vaccines”. Journal of Medical Ethics. July 7 2021. Accessed 7/22/21. <https://jme.bmj.com/content/early/2021/07/06/medethics-2021-107555> //Xu]

We turn next to positive ethical arguments for temporarily waiving IP protections, which appeal to the values of globally solidarity and corporate responsibility. Global solidarity underscores that during the COVID-19 pandemic, each nation’s interests are entwined with the interests of every other.22 Just as it is impossible for any nation standing alone to address the threat to human health climate change raises, it is impossible for any single nation to meet the challenge that COVID-19 and future pandemics present. Instead, humanity must stand together. In the past, nations have failed to do so. The epidemic of HIV/AIDS in Africa illustrates. Shamefully, it took nearly a decade for the first antiretroviral drugs to reach the African continent, even though Africa was the hardest hit region and antiretroviral drugs provided 90% mortality reduction. Although the US government was an early investor in research that produced antiviral drugs for HIV, distribution was controlled by big pharmaceutical companies driven by profit. The USA and other wealthy countries repeated this mistake during the COVID-19 pandemic, supporting vaccine developers without requiring technology transfers and donations to COVAX (the multilateral partnership supplying vaccines to LMICs). Ethically, the task ahead is fixing a problem of human making. A second argument, based on corporate social responsibility, stresses expectations for and benefits of socially responsible behaviour by for-profit companies. Increasingly, companies appreciate the potential impact that socially responsible behaviour has on competitive advantage, reputation, retention of workers and customers, employee morale and relationships with stakeholders.23 IP protections shield pharmaceutical companies from competition, enabling them to monopolise markets and generate above-normal profits. During a pandemic, social responsibility requires temporarily limiting profits and requiring companies to give back, rather than allowing above-normal profits to accrue unchecked. Even Locke, who conceived of our modern notion of property rights, held that fundamental rights like property could be justly overridden under certain conditions, namely, when the goods are perishable and would go to waste or when their extraction may intrude on the common good, in which case they extend only to what leaves enough behind for others.24 Building on this analysis, we submit that displays of social responsibility fall along a continuum. During the COVID-19 pandemic, a high degree of responsibility would be shown by temporarily sharing patents for products aimed at preventing, containing, or treating COVID-19, which is India and South Africa’s proposal; moderate responsibility would be demonstrated by temporarily sharing licenses to manufacture COVID-19 vaccines, as the WTO Director General proposes; and minimal responsibility would be shown by sending vaccines directly to nations in response to pleas for help, which Pfizer did when it pledged up to 40 million doses of its vaccine to COVAX (which represents under 2% of the 2.5 billion doses Pfizer will produce in 2021).25

### Underview

#### 1] 1AR theory is legit – anything else means infinite abuse – drop the debater, competing interps, no rvis and the highest layer of the round – 1AR is too short to make up for the time trade-off – no RVIs or 2NR theory and paradigm issues– 6 min 2NR means they can brute force me every time.

### Advantage

#### The Advantage is Innovation -

#### We are in an innovation crisis – new drugs are not being developed in favor of re-purposing old drugs to infinitely extend patent expiration.

Feldman 1 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

Drug companies **have brought great innovations** to market. Society rewards innovation with patents, or with non-patent exclusivities that can be obtained for activities such as testing drugs in children, undertaking new clinical studies, or developing orphan drugs. The rights provided by patents or non-patent exclusivities provide a defined time period of protection so companies can recoup their investments by charging monopoly prices. When patents end, lower-priced competitors should be able to jump into the market and drive down the price. **But that’s not happening**. Instead, drug companies build massive patent walls around their products, extending the protection **over and over again**. Some modern drugs have an avalanche of U.S. patents, with expiration dates **staggered across time**. For example, the rheumatoid arthritis drug Humira is **protected by more than 100 patents**. Walls like that **are insurmountable**. Rather than rewarding innovation, our patent system is now largely repurposing drugs.

#### The only major study confirms our Internal Link – Evergreening decimates competition by resulting in functional monopolies

Arnold Ventures 20 9-24-2020 "'Evergreening' Stunts Competition, Costs Consumers and Taxpayers" <https://www.arnoldventures.org/stories/evergreening-stunts-competition-costs-consumers-and-taxpayers/> (Arnold Ventures is focused on evidence-based giving in a wide range of categories including: criminal justice, education, health care, and public finance)//Elmer

In 2011, Elsa Dixler was diagnosed with multiple myeloma. That August, she was prescribed Revlimid, a drug that had come on the market six years earlier. By January 2012, she went into full remission, where she has remained since. So long as Revlimid retains its effectiveness, she will take it for the rest of her life. “I was able to go back to work, see my daughter receive her Ph.D, and have a pretty normal life,” said Dixler, a Brooklyn resident who is now 74. “So, on the one hand, I feel enormously grateful.” But Dixler’s normal life has come at a steep financial cost to her family and to taxpayers. Revlimid typically costs nearly $800 per capsule, and Dixler takes one capsule per day for 21 days, then seven days off, and then resumes her daily dose, requiring 273 capsules a year. Since retiring from The New York Times at the end of 2017, she has been on Medicare. Dixler entered the Part D coverage gap (known as the donut hole) “within minutes,” she said. She estimates that adding her deductible, her copayment of $12,000, and what her Part D insurance provider pays totals approximately $197,500 a year. Revlimid should have **been subject to competition** from generic drug makers starting in 2009, bringing down its cost by many orders of magnitude. But by obtaining **27 additional patents**, eight orphan drug exclusivities and 91 total additional protections from the U.S. Food and Drug Administration (FDA) since Revlimid’s introduction in 2005, its manufacturer, Celgene, has extended the drug’s **monopoly** **period** **by 18 years** — through March 8, 2028. “I cannot fathom the immorality of a business that relies on **squeezing people with cancer**,” Dixler said, noting her astonishment that Revlimid has obtained orphan drug protections when it treats a disease that is not rare and does not serve a very limited population. She also observed that Revlimid’s underlying drug is thalidomide, which has been around for decades. “They didn’t invent a new drug, rather, they found a new use for it,” she said. “The cost of Revlimid has imposed constraints on our retirement,” Dixler said, “but when I hear other people’s stories, I feel very lucky. A lot of people have been devastated financially.” Revlimid is a case study in a process known as “evergreening” — artificially sustaining a monopoly for years and even decades by manipulating intellectual property laws and regulations. Evergreening is most commonly used with blockbuster drugs generating the highest prices and profits. **Of the roughly 100 best-selling drugs, more than 70 percent have extended their protection** from competition at least once. More than half have extended the protection cliff multiple times. The true scope and cost of evergreening has been brought into sharper focus by a groundbreaking, publicly available, comprehensive database

#### 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.