**The role of the ballot is to vote for the debater who best proves the truth or falsity of the Resolution; the affirmative must prove it true and the negative must prove it false. Prefer:**

**A) Text: Five dictionaries define negate as to deny the truth of and affirm as to prove true which means the sole judge obligation is to vote on the resolution’s truth or falsity. Constitutivism outweighs because you don’t have the jurisdiction not to truth test. Jurisdiction is a meta constraint since every argument you make concedes the authority of the judge fulfilling their jurisdiction to vote aff if they affirm better and neg the contrary**

**B) Logic: Any counter role of the ballot collapses to truth testing because every property assumes truth of the property i.e. if I say, “I am awake” it is the same as “it is true that I am awake” which means they are also a question of truth claims because it’s inherent.**

**C) Ground: Any offense can function under truth testing whereas your specific role of the ballot excludes all strategies but yours. This is bad for education because me engaging in a debate I know nothing about doesn’t help anyone.**

**D) Truth Testing is a prerequisite to other role of the ballots because without truth we’re operating off of lies which is what fuels propaganda and oppression.**

1 <http://dictionary.reference.com/browse/negate>, <http://www.merriam-webster.com/dictionary/negate>, <http://www.thefreedictionary.com/negate>, <http://www.vocabulary.com/dictionary/negate>, <http://www.oxforddictionaries.com/definition/english/negate>

*2 Dictionary.com – maintain as true, Merriam Webster – to say that something is true, Vocabulary.com – to affirm something is to confirm that it is true, Oxford dictionaries – accept the validity of, Thefreedictionary – assert to be true*

**Presumption Negates**

**1. We presume things false, this is why people don’t believe things like conspiracy theories.**

**2. There are an infinite number of ways to prove something false and only one way to prove it true.**

**3. The neg burden is to deny the evidence of truth so if there’s no offense as to why the resolution is true the neg has fulfilled their burden.**

**Permissibility Negates**

**1. The aff must prove an obligation because ought indicates a moral obligation. If an action is permissible, definitionally, no obligation is present and you negate.**

**The standard is consistency with the categorical imperative. This is the idea that maxims must be universalizable without contradiction.**

**The meta ethics is practical reason, the ability to set and pursue ends, because practical reason is inescapable, since its constitutive of action and escaping practical reason is an action. This means practical reason is the most binding and determines morality.**

**Practical reason shows us morality must respect the equality of individuals.**

1. **All individuals are agents with practical reason. Even if people have different capacities for setting and pursuing ends, practical reason is still binding since every agent has some sort of action, even if this just means thinking etc. Because all people are agents it means there can’t be any morally relevant distinction between people.**
2. **History: Things like racism are objectively bad, because traits of someone's identity don’t affect how ethical someone is.**

**This means when you say something is obligatory you’re saying all practical reasoners have that obligation because you can’t arbitrarily exclude someone from ethics. Additionally,**

**a) It doesn’t make sense to say something’s a rule for you but not others, I.e. 2+2=4 to me but not other people.**

**b) Anything else means ethics is non binding since if certain people are in certain positions they don't have to follow rules, you can just put yourself in those positions whenever you don’t want to follow rules.**

**c) Identification of an obligation for oneself comes from our understanding that I as an agent have certain obligations, this means we must recognize this obligation for other agents too.**

**And, things can’t be both true and false.**

**Gahringer**, Robert. “Moral law.” *Ethics,* Vol. 63, No. 4, July 1953, pp. 300-304. // (N8)

“Within any deductive system the basic principle of criticism is self-consistency. **To show a deductive system inconsistent is to disqualify it.** If it is asked why be consistent, it will be answered that it is a basic condition of having a system. And if we ask why this, it will be answered that **[Without this] a system would not be an intelligible unity in any other way.** The demand for **consistency** rests ultimately on intelligibility; it **is a condition of intelligibility. Consistency may appear as a principle of the bare absence of contradiction,** and this may be only a matter of the independence of elements. But consistency may go much deeper. If someone suggests that we dispose of the principles of consistency, we can ask the consistency of such a suggestion. **If the principle of consistency is the condition of intelligibility, the denial of it** (which must be an intelligible denial) **denies in principle what it assumes**: it is *transcendentally inconsistent.* **The proposal to abandon the principle of consistency** (the law of noncontradiction) **cannot be made within any system, since every system presupposes it**; **and it cannot be made outside, since every proposal assumes it.** This is, of course, a material consideration belonging to logic in the larger sense.”

**Thus our actions must be able to be universalized because all people are equal, and still be possible when universalized since an action can’t be possible and not possible, I.e. an action must still be possible to take when everyone takes that action.**

**This is a side constraint: even if you prove some other ethical theory is good, it can’t provide obligations  that lead to contradictions because it can’t say everyone is obligated to do something and not do something.**

**Prefer additionally:**

**1. Regress: Any framework allows you to infinitely ask why, only my framework stops the regress because once you get to the point of practical reason, questioning it doesn’t make sense, since to question practical reason concedes its validity.**

**2. Performativity: We need freedom to make any arguments in debate, this means answers to my framework prove it true because you exercise your practical reason to try and contest it.**

**Contention 1)**

**Intellectual property is equivalent to actual property, and violations of it are coercive.**

**Mossoff,** Adam. "Why Intellectual Property Rights? A Lockean Justification." *Library of law and liberty* (20**15**).

<https://lawliberty.org/forum/why-intellectual-property-rights-a-lockean-justification/>

One of the strengths of the Lockean property theory is that it recognizes that **IP rights are** fundamentally **the same as all property rights** in all types of assets—from personal goods to water to land to air to inventions to books. **These** and many other type of goods **are the byproduct of an individual’s value-creating, productive labor that creates them, acquires them, transforms and uses them, and ultimately disposes of them in voluntary transactions with other people in civil society.** This is why Locke himself expressly recognizes that **copyright is property.** He also wrote approvingly of inventions and the technical arts as exemplars of the value-creating, productive labor that creates all property (contrary to oft-repeated, mistaken claims about Locke’s view of IP rights by some scholars today[4]). The key moral insight in Locke’s Two Treatises of Civil Government is that all property arises from the fact that individuals must produce the values required for a flourishing human life. Accordingly, **property rights define the sphere of liberty required for an individual to create, use, and dispose of these values**. As I have explained, this is the essence of Locke’s “mixing labor” argument for property in the Two Treatises.[5] Here, “mixing labor” is a metaphor that refers to the productive labor that creates the physical goods required for a flourishing human life. Philosopher Stephen Buckle, for instance, writes that, for Locke, “labour is the improving, value-adding activity required by the duty to preserve oneself and others.”[6] Locke is absolutely clear about the meaning of value: “the intrinsick value of things . . . depends only on their usefulness to the Life of Man.” (TT II.37)[7] In this important respect, the concept of value in Locke’s labor theory of value and in his broader property theory is not economic or materialistic; as I have explained, it is a moral concept that refers to the intellectual and physical values that one creates to live a flourishing life, or what Locke repeatedly refers to in the Two Treatises as the “conveniences of life” (TT II.26, II.34, II.37, II.36, II.48).  This is unsurprising given Locke’s commitment to classical natural law ethical theory and its moral ideal of a flourishing life, consisting of both mental and physical values.[8] This important point is often missed by legal scholars and philosophers who read only the Second Treatise, or perhaps only just Chapter 5 (“Of Property”) of the Second Treatise, and thus fail to recognize the broader philosophical framework in which Locke situates his political theory generally and his property theory in particular. In the First Treatise, for instance, Locke explains that it is man’s nature as “an intellectual Creature” that makes him “capable of Dominion.” (TT I.30) A flourishing human life requires both intellectual and physical labor—the production of the intellectual and physical values that serve the “conveniences of life” through the uniquely human capacity for rationally guided action. **In brief, “mixing labor” occurs when a rational person engages in value-producing labor, and he creates property**—dominion in the Latin of the Roman Law and of modern political philosophy.[9] These foundational ideas from Locke’s ethical theory explain why his examples of value-creating labor in the Second Treatise consist mostly of the “Industry” of technological inventions, such as the bread made by the “Mill [and] Oven,” the “Plough” that tills the soil, and “all the Materials made use in the Ship,” among others. (TT II.43) And we must not forget the conceptual skills of artisans that made possible “the Labour of those who broke the Oxen, who digged and wrought the Iron and Stones, who felled and framed the Timber.” (TT II.43) This is what Locke means when he writes that “the ordinary Provisions of Life, through their several progresses, before they come to our use, … receive of their value from Human Industry.” (TT II.42) (original emphasis) Locke’s own explanation of his property theory is replete with examples of his moral approval of how technological inventions secure for an individual the “conveniences of life”—a flourishing human life. What to make of this deeper moral insight embedded in Lockean property theory, especially in justifying IP rights? Two important points are worth noting. First, it shows how legal scholars and philosophers have misconstrued Locke’s famous farming examples in the Second Treatise (TT II.32, II.37, II.40, II.43, II.48) in claiming that his property theory is restricted to only physical parcels of earth or goods. Those who assert that Lockean property theory establishes that property is solely about resolving conflicts over a preexisting physical resource (like the land used for a farm) have taken a premise from Locke’s explanation for the formation of civil society and grafted it onto Locke’s entirely separate explanation for why property is justified. Locke’s farming examples are illustrations of value-creating, productive labor because they are replete with conspicuous references to the intellectually-driven, technological inventions that make possible farming in the first place. Second, and directly related to the first point, it explains why Locke himself expressly justifies copyright as “property” and approvingly refers to “Inventions and arts” in his summation of his theory that property arises from value-creating, productive labor that supports the “conveniences of life” in § 44 of the Second Treatise. In 1690, the legal concept of patents (property rights in inventions) did not exist yet,[10] and so this is an explicit indication of Locke’s willingness to include what would later become the legal concept of patents within his property theory. With respect to copyright, which was slowly coming into existence as a legal concept in the late 17th century, Locke expressly endorses it as a property right in 1695. In an essay on the statutory printing monopoly granted to the Stationers Company by Parliament, Locke condemns such monopolies as violating the “property” in creative works that “authors” rightly claim for themselves.[11] In what might be a further surprising claim for many today who think copyright terms are too long, Locke writes in this 1695 essay that authors should have their property rights secured to them for their lifetimes or after first publication plus “50 or 70 years.”[12] The current copyright term is life of an author plus 70 years, which was set in 1998 by the much-maligned Copyright Term Extension Act.[13] And to be clear that Locke believes that it is authors who should have a property right in their literary works that can be freely alienated in the marketplace, he further proposes an amendment to Parliament that any new printing statute should expressly “secure the author’s property in his copy, or to his whom he has transferred it.”[14] The natural law ethical theory that informs Locke’s argument for property rights explains why he thinks his property theory applies to inventions and books. In § 34 of the Second Treatise, Locke explains that **the world exists for “the use of the Industrious and Rational”** **who obtain the “greatest Conveniences of Life they were capable to draw from it” by the “Labour [that] was to be his Title to it.”** (original emphasis) It is man’s rational nature as an “intellectual Creature” (TT I.30) that is the source of both the moral ideal (a flourishing life) and the means to that end (value-creating, productive labor). It is not lions, tigers, bears, or other “dangerous and noxious Creatures” (TT II.16) who invented the plough, the mill, and ships. Such **inventions represent the rationally-guided, value-creating, productive labor that serves a flourishing human life in civil society, and this is why Locke highlights them as exemplars of his property theory.** Lockean Theory in Modern American IP Law The genius and success of Anglo-American property law is that it has recognized and applied the central idea from Lockean property theory that property rights secure values, not just physical objects. As James Madison explains in a 1792 essay, property is more than just “a man’s land, or merchandize, or money,” as it has a “larger and juster meaning, [in which] it embraces everything to which a man may attach a value and have a right.”[15] Madison thus concluded that **“a man has a property in his opinions” and even that he has “a property in his rights.”**[16] This explains the hoary metaphor that the law should secure the fruits of one’s labors.[17] Just as with Locke’s “mixing labor” metaphor, the “fruits of one’s labors” is a metaphor that refers to the use and profit that one enjoys from laboring on one’s property. Of course, the idea that property rights secure justly deserved profit from the use of property was not novel to Locke; in 1628, for example, Lord Coke posited the rhetorical question, “What is the land but the profits therefrom?”[18] But Locke’s genius is to give this idea its moral import.  It is also the genius of early American courts that they applied this moral principle in the law. American courts recognized that “property … may be violated without the physical taking of property” following any act that “destroys it or its value.”[19] While there have always been scholars, judges, and even some prominent American Founders who thought otherwise about patents and other IP rights, the dominant approach among American courts was to secure patents, copyrights, and other IP rights as fundamental property rights. As I have explained in my scholarship, for instance, patents were defined as civil rights securing fundamental property rights, and thus identified at the time by the legal term of art, “privilege” (see here). American legislators and courts thus secured property rights in novel and useful inventions, creative works, trademarks, and trade secrets—securing the right to make, use, and profit from the value created by one’s productive (inventive) labors. For the sake of brevity, a few illustrative quotes must suffice. In a patent lawsuit in 1845, an American judge wrote that **“we protect intellectual property, the labors of the mind, productions and interests as much a man’s own, and as much the fruit of his honest industry, as the wheat he cultivates, or the flocks he rears.”**[20] This 1845 judicial opinion appears to be the first use of the phrase “intellectual property” in the official American legal records. In his famous 1826 treatise, Commentaries on American Law, Chancellor James Kent classifies copyrights and patents under the title, “Original Acquisition by Intellectual Labor.” Here, Kent argues for the Lockean principle that **“It is just that [authors and inventors] should enjoy the pecuniary profits resulting from mental as well as bodily labor.”**[21] As 19th century judges were wont to say, the patent laws ensured that an inventor would “enjoy the fruits of his invention.”[22] Even more explicitly invoking the Lockean theory I described earlier, one judge in 1843 explained that it is “difficult to draw a distinction between the fruits of mental and physical labor” and that this is a key reason why the patent laws provide that “a man should be secured in the fruits of his ingenuity and labor.”[23] These are only a few examples from a historical legal record of IP rights that are permeated with references to Lockean theory.[24] But many scholars today reject such evidence as mere “rhetoric.” The conventional wisdom is that, while such sentiments were perhaps widespread given American exceptionalism, they had no real impact in the creation and enforcement of IP rights in actual legal doctrine.[25] This is wrong for several reasons. I cannot address them all in a short essay here, but I will identify a couple to make the case that Lockean theory was determinative in designing novel legal protections for IP rights in the early American Republic. First, as a preliminary matter, my colleague, Eric Claeys, has shown that this critique results in part from foisting on Lockean property theory a deontological framework that is alien to Locke’s ethical and political theory. It was also alien to the American legal actors who understood Lockean theory and implemented it in the law. Thus, this indeterminacy critique is really a strawman attack on Lockean theory. Such deeper philosophical concerns, including a deeper conceptual dispute about what comprises the concept of property itself,[26] are beyond the scope of this essay. Here, it is sufficient to explain that Lockean theory was determinative in designing IP law, and in fact it drove the creation and application of many doctrines that have come to be settled IP law in the United States, at least with respect to legally securing patented innovation. To understand this point, though, one must first understand how legal doctrines are generally construed and applied by courts and other legal actors. As a general matter, the law functions through presumptions that are built into a legal doctrine according to the normative theory that justified the doctrine when it was created. According to Lockean political theory, the law functions by securing the rights to life, liberty, and property, which are limited by the equal protection of other people’s rights or by the rights-holder’s own default on his moral claims. To give a noncontroversial example: Adults have the constitutional right to vote in the United States, unless of course one commits a felony and is currently residing in prison. A right defines the scope of one’s liberty and the law implements this through the default rules and rebuttable presumptions that constitute much of the work of legal analysis. There are too many complexities to show how this works for all IP rights and so this essay will focus on early American patent law. As shown above, many legislatures and judges recognized that patents are property rights in innovation resulting from value-creating, productive labor. Accordingly, this defined the nature of the legal presumptions the courts applied in securing patents to their owners. This is evident in some of the basic doctrinal requirements in patent law. For instance, Lockean theory justifies the uniquely American approach of securing patents to the “first inventor,” which is a presumption that could be rebutted by the inventor’s own actions resulting in a default on his claim to a patent. This default occurs, for instance, when a first inventor publicly uses or sells an invention and thus creates moral interests and reasonable expectations secured under the law to third parties to its ongoing, unfettered use.[27] Furthermore, the doctrinal requirement that patents may issue only for technological innovation that is useful, and not for just abstract ideas, is also justified by Lockean property theory’s basic premise that productive labor creates the useful real-world values that serve a flourishing life.[28] Lastly, Lockean theory justifies the longstanding doctrinal presumption that an inventor is entitled to a patent unless it can be proven that his application fails the various doctrinal requirements for a valid patent (that the invention is novel, useful, and fully disclosed).[29] Beyond these basic doctrinal requirements for obtaining a valid patent, the justification of patents as property rights according to Lockean theory had additional and far-reaching practical effects in the law. It led judges to fashion other crucially important doctrinal presumptions, such as adopting the interpretative canon taken from common law judges’ interpretation of title deeds that patents should be construed liberally in favor of the inventor (we now refer to this as the presumption of validity, which is expressly provided for in the patent statutes).[30]This made sense to early American judges, who legally classified patents as “title” deeds[31] and who further defined patent rights according to concepts from common law property doctrines, such as identifying multiple owners of patents as “tenants in common.”[32] The policy justification that courts should secure to innovators the fruits of their inventive labors was embedded in the conceptualization of patents as property rights in the early American political and legal system. For similar reasons, Lockean theory inexorably led American judges to extend constitutional protections to patents under the Constitution, which directly contrasted with denials of similar protections for monopoly franchise grants. American judges often contrasted American property rights with the franchise grants in inventions in other countries, such as in England.[33] This was a point of difference often highlighted by American judges as to the superior treatment of American innovators—here, inventors received proper protection for the fruits of their inventive labors under the American laws that secured property rights in innovation.[34] Last, and certainly not least, the protection of patents as fundamental property rights justified by Lockean theory led courts to craft the important legal protections for patent owners in alienating their property rights in the marketplace. Courts expressly incorporated into patent law the common law property doctrines securing the right to freely transfer one’s property rights in the marketplace. Courts even adopted the same concepts used to describe such transfers by common law property owners—patent owners transfer their rights via “assignments” or “licenses.”[35] Award-winning economic historians like Zorina Khan and others have shown that this led to an explosion in commercial transactions in the United States, as inventors and capitalists embraced the efficiencies of the division of labor and market specialization.[36] This important economic activity was made possible in part by courts securing patents as property rights, applying Lockean property theory’s normative presumption in favor of private ordering of the marketplace through freedom of contract. The protection of IP rights as property rights under Lockean theory in early American law was not limited to patents, as scholars have shown for trademark and copyright.[37] It is undeniable that there were judges and even some Founders, such as Thomas Jefferson, who believed that IP rights were special grants of monopoly privileges. But their views were absent when courts crafted the key legal doctrines that defined American IP rights and secured these property rights against widely reviled “pirates.”[38] The intellectual history of IP rights, at least from the 18th century onward, is one in which the legal doctrines securing patents, copyrights, and trademarks were conceived as property rights and applied in real-world cases under the guidance of Lockean property theory. As Circuit Justice Bushrod Washington explained in 1817: **patent infringement is “an unlawful invasion of property.”**[39]

**This impacts back to my framework because in order to violate someone else's freedom you have to have freedom. However, if everyone violates everyone’s freedom no one has freedom to take the action of coercion. Thus, coercion isn’t universalizable without contradiction and is immoral.**

**Contention 2) Taking back patents after companies developed drugs in return for them, is an instance of promise breaking.**

**Vaccine patents aren’t the problem and waiving them would be disastrous.**

**Miron,** Jeffrey. "Waiving Covid-19 Vaccine Patents Would Be Disastrous." *Market Watch*, 19 May 20**21**, www.marketwatch.com/story/waiving-covid-19-vaccine-patents-would-be-disastrous-11621430167. Accessed 21 Sept. 2021.

In a widely anticipated move, the Biden administration has [announced](https://www.reuters.com/business/healthcare-pharmaceuticals/biden-says-plans-back-wto-waiver-vaccines-2021-05-05) that it would support a patent waiver for COVID-19 vaccines at the World Trade Organization. Advocates claimed this would increase vaccine production and equalize access. WTO negotiations [are expected to last](https://www.reuters.com/world/china/vaccine-ip-waiver-could-take-months-wto-negotiate-experts-2021-05-06), at a minimum, a month or two. Decisions require consensus of all 164 member-states, and getting there seems [unlikely](https://www.bbc.com/news/world-europe-57013096) for the moment. This is fortuitous; a patent waiver would fail to achieve its stated goals while risking harmful long-term effects. The standard argument for government patent protection, which normally grants the owner monopoly use of the innovation for [20 years](https://www.wipo.int/patents/en/faq_patents.html#:~:text=How%20long%20does%20patent%20protection,filing%20date%20of%20the%20application.), is that a temporary, government-protected monopoly is crucial to incentivizing innovation. **Development costs for new medicines or vaccines often run into** [**the**](https://www.policymed.com/2014/12/a-tough-road-cost-to-develop-one-new-drug-is-26-billion-approval-rate-for-drugs-entering-clinical-de.html)[**billions**](https://jamanetwork.com/journals/jama/fullarticle/2762311)**,** yet the products often cost only [pennies per dose](https://gh.bmj.com/content/3/1/e000571) to manufacture once the right formula exists. **Absent patent protection,** therefore, **reverse engineering of a new drug or vaccine might allow in low-price competitors, so the innovating firm cannot recoup its development costs.** Then much of this innovation might not occur in the first place. This justification for government-enforced patents is reasonable, but it is not the whole story. Patent protections can sometimes hinder innovation because old ideas are inputs to new ones. Innovators can earn some financial return without patents, using first-mover advantages or secrecy. And the evidence about whether intellectual property (IP) protection promotes innovation is [mixed](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2180847). Reasonable people can therefore discuss whether, going forward, government IP protection should be as strong or as widespread as it is currently; [weaker](https://www.aeaweb.org/articles?id=10.1257/aer.102.1.396) or [different](https://press.princeton.edu/books/hardcover/9780691647449/industrialization-without-national-patents) [systems](https://www.jstor.org/stable/10.1086/663631?seq=1) might indeed [be better](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2180847). **Pharmaceutical companies operate in a heavily regulated sector with enormous research costs,** whereas restaurants face milder regulation coupled with lower product-development costs. Perhaps it makes sense that drugs be patentable, but not recipes. **But stripping away IP protection from the current holders of COVID-19 vaccines patents is deeply misguided. Pharmaceutical companies have created a product of astronomical value.** [One estimate](https://science.sciencemag.org/content/371/6534/1107) suggests 3 billion vaccine courses in 2021 would generate a global benefit of $17.4 trillion, or over $5,800 per course. **Ex-post appropriation of existing patents signals** both domestically and abroad **that the U.S. government puts political expedience before the rule of law.** This sets a terrible precedent. **Imagine if governments demanded repayment of Social Security benefits because deficits are getting large or reversed antitrust-approved mergers because key political supporters opposed them. Society cannot function unless individuals and organizations can rely on previously settled deals.** [Some](https://www.nytimes.com/2021/03/24/opinion/coronavirus-vaccine-cost-pfizer-moderna.html) believe the U.S. government is entitled to the IP benefits of COVID-related research because it played a major funding role both directly and indirectly. Operation Warp Speed indeed spent $12.4 billion by December 2020, but [almost half](https://time.com/5921360/operation-warp-speed-vaccine-spending) was entirely on manufacturing, with the other half not differentiating between manufacturing and development. Pfizer [PFE, -0.63%](https://www.marketwatch.com/investing/stock/PFE?mod=MW_story_quote), for example, took no government money for its vaccine research. Indirectly, [National Institutes of Health (NIH)-funded](https://www.statnews.com/2021/01/05/basic-research-paved-way-for-warp-speed-covid-19-vaccines) basic research has helped our understanding of mRNA mechanisms. But successful vaccine products took decades of large, risky research by [private companies like Moderna](https://www.statnews.com/2021/04/05/thank-private-risk-taking-not-public-funding-for-covid-19-vaccines-therapies) [MRNA, +2.53%](https://www.marketwatch.com/investing/stock/MRNA?mod=MW_story_quote). All this discussion, moreover, misses a fundamental point. When government decided to fund companies through Operation Warp Speed or research through the NIH, it did not do so with the caveat that companies would have to forego IP rights in the future. If this had been clear from the outset, it would be defensible for government to claim the right to waive patents now. But had the companies known, they might not have taken the money or conducted the research in the first place. Further, the waiver is not likely to achieve the goals of increased production in the short term. [Many](https://www.statnews.com/2021/05/06/waiver-of-patent-rights-on-covid-19-vaccines-in-near-term-may-be-more-symbolic-than-substantive) [experts](https://blogs.sciencemag.org/pipeline/archives/2021/05/06/waiving-ip) [have](https://endpts.com/as-fears-mount-over-jj-and-astrazeneca-novavax-enters-a-shaky-spotlight) stressed that IP is not the hurdle keeping production from increasing in the near future. [AstraZeneca](https://www.astrazeneca.com/what-science-can-do/topics/technologies/pushing-boundaries-to-deliver-covid-19-vaccine-accross-the-globe.html)  [AZN, +1.08%](https://www.marketwatch.com/investing/stock/AZN?mod=MW_story_quote) [AZN, +1.76%](https://www.marketwatch.com/investing/stock/AZN?countryCode=UK&mod=MW_story_quote) has licensed production to 15 countries and 25 manufacturing sites and [Moderna](https://investors.modernatx.com/news-releases/news-release-details/statement-moderna-intellectual-property-matters-during-covid-19) stated it would not enforce its COVID-19 related patents during the pandemic. Instead, [manufacturing component](https://www.news18.com/news/opinion/single-use-plastic-bioreactor-bags-to-filters-why-india-needs-them-from-us-for-covid-vaccines-3681092.html)s and [raw materials](https://www.theatlantic.com/science/archive/2020/10/single-tree-species-may-hold-key-coronavirus-vaccine/616792) are the relevant bottlenecks. Finally, even if patents were an obstacle to increased production, an alternative for producing more vaccines exists: pay for them. Governments could buy patents, or doses, from pharmaceutical companies and donate them around the world. Such buyouts have the same upsides as waivers, but without risking long-term vaccine innovation. The rule of law could live to see another day.

**This impacts back to my framework because a) government’s used companies as a means to their end of getting the vaccine and b) breaking promises isn’t universalizable without contradiction, since to break promises they have to have standing but if everyone just broke promises they wouldn’t exist anymore to break since a promise implies trust.**

**Contention 3) Copying other people’s formulas isn’t universalizable without contradiction. The resolution is a question of whether or not people should be allowed to replicate medicines that other people came up with and created. This isn’t universalizable without contradiction since if everyone just copied some other person there would be no original and copying would be impossible.**

**Patents are key to innovation in the drug industry.**

**Cockburn**, Lain. "The Importance of Patents to Innovation: Updated Cross-Industry Comparisons with Biopharmaceuticals." *Taylor and Francis Online*, Apr. 2015, [www.tandfonline.com/doi/pdf/10.1517/13543776.2015.1040762?needAccess=true](http://www.tandfonline.com/doi/pdf/10.1517/13543776.2015.1040762?needAccess=true). Accessed 21 Sept. 2021.

**Patents have long been considered essential incentives to foster innovation,** particularly the development of new prescription drugs, **due to the lengthy, costly, and risky nature of the research and development (R&D)** process as compared to the lower levels of investment and risk associated with generic drug entry. Compared with other forms of intellectual property protection (such as trade secrets, trademarks, and copyrights) and strategic complementary assets (such as lead time, sales and service, and manufacturing advantages), researchers focused on the US since the 1980s consistently have found patents to be relatively more important to R&D in pharmaceuticals than in other industries. **Despite many changes in the market and patent landscape, the most recent data from government surveys and annual surveys of licensing professionals continue to find differential and high importance of patents to biopharmaceutical innovation.** 1. T**he importance of patents and intellectual property protection to biopharmaceutical innovation Due to distinctive economic characteristics, patents and regulatory exclusivity have long been considered essential to prescription drug development. These characteristics include the costly, lengthy, and risky nature of innovative research and development (R&D) and the much lower investment required for generic drugs. Because of this disparity, without patent protection and regulatory exclusivity,** particularly in the USA, **innovators would be unlikely to make the substantial investments required to bring new drugs to market.** Whereas drug development is global, patent law and regulation are country-specific. In the USA, regulatory exclusivity operates in parallel with patents, defining when generics or biosimilars may not submit abbreviated applications and/or enter the market. **Generic imitation may require several million dollars, whereas the cost to bring a single FDA-approved drug to market (including the cost of failed attempts) has been estimated at** $1.4 billion in out-of-pocket costs and **$2.6 billion** including the cost of capital [[1,2]](https://www.tandfonline.com/doi/full/10.1517/13543776.2015.1040762). New drug R&D requires more than a decade, including pre-clinical testing, clinical trials, and US regulatory approval [[1,2]](https://www.tandfonline.com/doi/full/10.1517/13543776.2015.1040762). In comparison, clinical testing is not required for generics; manufacturers need only demonstrate bioequivalence to an already-approved drug. Risk is also high; the vast majority of candidates are eliminated, most before clinical testing. For those that begin clinical testing, the probability of proceeding to approval averages only 12% [[2,3]](https://www.tandfonline.com/doi/full/10.1517/13543776.2015.1040762). **Therefore, R&D must be funded by a few successful, on-market medicines** [**[4]**](https://www.tandfonline.com/doi/full/10.1517/13543776.2015.1040762)**.** Generally, in the USA, once patent protection and any 180-day generic exclusivity end, multiple generics launch, and generic share increases rapidly. For all new molecular entities experiencing first generic entry in 2011–12, the average brand’s unit share of molecule sales declined to 16% 12 months after generic entry, versus 44% in 1999–00 [[5]](https://www.tandfonline.com/doi/full/10.1517/13543776.2015.1040762). In 2013, generics represented 86% of all US prescriptions [[6]](https://www.tandfonline.com/doi/full/10.1517/13543776.2015.1040762). In addition to distinctive R&D and market competition economic characteristics, biopharmaceuticals are also distinguished from other industries by a large gap between the statutory patent term (20 years from the effective patent filing date) and the effective patent term (years remaining at launch), even after any patent term restoration and additional regulatory exclusivity (e.g., for pediatric studies). The average time between brand launch and first generic sale for drugs experiencing initial generic entry in 2011–12 was 12.6 years for drugs with sales greater than $100 million (in 2008 dollars) in the year prior to generic entry, and 12.9 years overall [[5]](https://www.tandfonline.com/doi/full/10.1517/13543776.2015.1040762). In contrast, assuming < 3 years for the US Patent and Trademark Office to examine and approve a patent application (overall average of 29 months for FY2013), the remaining duration (assuming 20 years from the effective patent filing date) would be > 17 years in other industries [[7]](https://www.tandfonline.com/doi/full/10.1517/13543776.2015.1040762). Finally, **patents serve other particularly important economic functions in biopharmaceuticals, developing robust markets for technology and ‘signaling’ to potential investors the quality of pre-market assets** [[8]](https://www.tandfonline.com/doi/full/10.1517/13543776.2015.1040762). Since the 1980s, a number of scientific, economic, and legal developments have created the modern-day US biopharmaceutical sector [[9]](https://www.tandfonline.com/doi/full/10.1517/13543776.2015.1040762). In addition to scientific discoveries creating new areas of life sciences research, patent law developments made obtaining and enforcing patents for genes and recombinant entities possible, the Bayh-Dole Act encouraged university licensing of government-sponsored research, and a venture capital industry emerged, supporting early phase companies. Between 1980 and 2012, life sciences venture investments totaled $108 billion in 4,600 start-ups (19% of all US venture investment then) [[10]](https://www.tandfonline.com/doi/full/10.1517/13543776.2015.1040762). **Potential start-up investors weigh patents heavily,** including expected effective patent terms of molecules in development, and patent strength for proprietary technology. 2. Previous cross-industry studies Previous studies have assessed the importance of patents to R&D investment and innovative activity in the USA, finding variation across industries, with patents viewed as more critical to firms realizing the benefits of R&D investments in drug development. Edwin Mansfield (1986) estimated the impact of patents on the development and introduction of inventions without patent protection, relying on data from 100 US manufacturing firms in 12 industries [[11]](https://www.tandfonline.com/doi/full/10.1517/13543776.2015.1040762). Respondents reported that **65% of commercially introduced inventions in the pharmaceutical industry would not have been introduced without patents,** and 60% of inventions would not have been developed in 1981–83 without patents. Figures for other industries were far lower, from 0% (textiles, rubber, motor vehicles, office equipment) to 30% for the next-highest industry (chemicals). Richard Levin *et al*. (1987) surveyed R&D managers of 600 US firms, similarly finding that of 18 industries, ‘drugs’ had the highest rating for effectiveness of patents in preventing unlicensed duplication [[12]](https://www.tandfonline.com/doi/full/10.1517/13543776.2015.1040762). **Pharmaceuticals were the only industry in which product patents were rated by most as more effective than other methods of appropriating the benefits of innovation** (greater than secrecy, lead time, learning curve advantages, sales or service efforts). Cohen *et al*. (2000) analyzed survey results from ∼ 1500 US R&D managers in 34 industry groups and similarly found that the two industries rating effectiveness of patents highest in appropriating the benefits of product innovations were pharmaceuticals and medical equipment [[13]](https://www.tandfonline.com/doi/full/10.1517/13543776.2015.1040762). Arora *et al*. (2007), using data from the 1994 Carnegie-Mellon Survey of US R&D labs (1991-93 data), estimated returns to patent protection and their impact on firm-specific R&D investment, across industries [[14]](https://www.tandfonline.com/doi/full/10.1517/13543776.2015.1040762). The expected incremental value of an innovation due to patenting (‘patent premium’) was highest in the medical instruments, biotech, and drugs and medicines industries, of any of the 19 industries studied, confirming the higher expected returns to patenting and that higher patent returns stimulate greater R&D investment. 3. **Recent government and licensing executive surveys Recent US government and licensing executive surveys confirm these results.** In the three annual Business R&D and Innovation Surveys (BRDIS) conducted by the US Census Bureau for the National Science Foundation (2008–10), companies most likely to report that utility (including composition of matter) patents were ‘very’ or ‘somewhat important’ were in pharmaceuticals and medicines; semiconductor machinery; and electromedical, electrotherapeutic, and irradiation apparatus (North American Industry Classification System four-digit level) [[15]](https://www.tandfonline.com/doi/full/10.1517/13543776.2015.1040762). Sixty-one percent of “R&D-active pharmaceuticals and medicines” companies reported utility patents being ‘very’ or ‘somewhat important.’ In comparison, utility patents were rated as ‘very’ or ‘somewhat important’ by < 4% and ‘not important’ by 96% of all respondents (2010 results). In addition, between 2004 and 2009, the LES Foundation conducted an annual online survey of US and Canada members of the Licensing Executive Society [[16]](https://www.tandfonline.com/doi/full/10.1517/13543776.2015.1040762). The most recent (collected in 2008, referring to 2007) gathered data from ∼ 600 licensing professionals in small (fewer than 500 employees) and large (> 500 employees) ‘technology creator’ and ‘technology user’ organizations. The 2007–08 LES survey also found differential patent importance: Eighty-nine percent of respondents in the healthcare (including biotechnology, pharmaceuticals and medical) industry characterized patents as ‘extremely important’ in ‘creating a competitive advantage for your organization’ ([Figure 1](https://www.tandfonline.com/doi/full/10.1517/13543776.2015.1040762#F0001)). In comparison, 79% of energy and chemicals respondents (energy, chemicals, petrochemicals, polymers, and allied industries), 73% of electronics and software respondents, and 47% of other respondents (financial markets, food and beverage, transportation and mechanics, and other industries) reported patents were ‘extremely important.’ The gap between the importance of patents and other forms of intellectual property (IP) protection (know-how, trade secrets, trademarks, and copyrights) was greatest in healthcare (including biotechnology, pharmaceuticals and medical devices) (Table 1). Table 1. ‘Extremely important’ ratings by type of IP protection. Figure 1. Importance of patents – healthcare respondents. Includes biotechnology, pharmaceuticals, and medical. Blank responses excluded from calculations. 4. Conclusion Since the 1980s, US-focused researchers have found patents to be relatively more important to R&D than other forms of IP protection (trademarks, copyrights, confidential trade secrets, confidential or non-confidential know-how) and strategic complementary assets (such as lead time, sales and service, and manufacturing advantages) in biopharmaceuticals than in other industries. The most recent data from US government and annual US and Canada licensing professional surveys are consistent with these findings. 5. Expert opinion In most other industries, patents have not been the reported mechanism US firms rely on most to protect their R&D investments. Rather, trademarks, copyrights, and trade secrets typically have been identified as more important (two to three times more commonly reported as ‘very important,’ all industries average, according to the 2010 BRDIS survey). The differential importance of patent (and regulatory exclusivity) protection has persisted despite changes in the biopharmaceutical landscape, including evolving brand-generic drug competition, a maturing, increasingly important biotechnology sector, and changes in the US patent litigation environment. **Given high, increasing costs, and persistently high scientific risk, of bringing an FDA-approved drug to market, and the continuing importance of secure patents to attracting start-up investment capital, this difference is expected to persist.** The uncertainty surrounding expected patent protection may be increasing, however, with unknown effects. Drug patent challenges have become more common, and occur earlier after launch; 81% of drugs experiencing first generic entry in 2012 had experienced a so-called Hatch-Waxman ‘Paragraph IV’ patent challenge, versus only 9% in 1995 [[5]](https://www.tandfonline.com/doi/full/10.1517/13543776.2015.1040762). Another unknown is whether importance ratings of patents versus other forms of IP protection differ today for biologic and small-molecule drugs, and what effects US biosimilar entry will have over time. Due to the availability of US data over time and its market importance, we have focused our analysis there. Differences in patent and regulatory regimes and other factors may result in other countries reporting different results. Local and global innovation effects of these differences are important areas for further research.