## O/V

#### [1] AFF theory is no RVI, Drop the debater, competing interps, under an interp that aff theory is legit A) infinite abuse since otherwise it would be impossible to check NC abuse B) the 2n can dump on a script to a CI and go for RVI’s making it impossible to check abuse C) The 1ar is too short to win theory and substance D) The 2n can always create infinite reasonability arguments the 2ar can’t get through E) New 2ar weighing is legit otherwise the 2n can collapse and sandbag one issue for 6 min and I’ll always lose.

#### [2] The neg must only defend the converse of the resolution. violation would be reading an alt advocacy that’s not the squo. since a. Reciprocity – granting you access to anything else skews the structural burden in your favor b. Topic ed – the core discussion should be the aff versus the converse since that is a direct comparison of the resolutional question.

#### [3] The neg may not read consequentialism. violation would be reading util. a) advantages massive prep squads and programs with tons of coaches to cut a ridiculous amount of evidence. This means underprivileged debaters lose to prep outs without any debate skill tested b) phil ed – consequentialism disincentives forms of critical thinking inherent to philosophy unique to LD since they only care about results of policies. c) Resolvability – we cannot predict the outcome of a situation insofar as no situation is ever replicated exactly, and even if it can, there’s no guarantee the outcome will be the same.

#### [4] The neg must gain offense from at most one route to the ballot and that route must be unconditional. violation would be having multiple condition routes to the ballot. A) key to aff strat since otherwise the neg can just layer the debate round and collapse to whatever layer the aff inevitably undercovers in the 1ar, B) clash- this interp forces the neg to engage in the AC rather than just reading several preclusive layers

## Fwk

#### The meta-ethic is consistency with transcendental form of subjects.

#### Moral Realism is true – there is an ethical truth that exists metaphysically: a) otherwise we could not make moral claims since we would merely claim disagreement rather than an absolute wrong, justifying any ethical statement b) relativism is circular since asserting relativism assumes its own universal truth, which concedes the authority of realism c) regressive moral debates always terminate in an endpoint of agreement, we just compare different values in an attempt to find the ultimate one.

#### And, that’s only accessible through procedural transcendental idealism – a) Is/ought gap – appeals to the empirical world merely explain how the world is rather than what it ought to be b) Motivation – empirical circumstances change based one each individual, only transcendent moral truths can motivate all agents absent those features. Jindal 99, Jindal, Bobby. Louisiana Law Review, 1999. Web. <http://digitalcommons.law.lsu.edu/cgi/viewcontent.cgi?article=5780&context=lalrev>.//Scopa Modem political philosophers ranging from Robert Nozick to John Rawls have attempted to discern the principles of justice that should guide societal arrangements. This project is of vital importance since it informs society of its obligations to its weakest and most vulnerable members. Yet, the question of why one should be just is an intelligible one to ask and deserves some response. This paper argues that the political-legal obligation to be just is derivative from man's more general duty to be moral, a commitment grounded in intuitions which are themselves based on transcendental values, i.e., values that exist apart from a particular society. Those political theories that lack a transcendental notion of morality lack binding force; the theorist who persuades without asserting truth is helpless to convince or judge those committed to different principles. Modem liberalism, with its explicit commitment to neutrality, has nothing to say to individuals who do not share its values; similarly, communitarianism, with its cultural relativism, cannot critique an unjust society from the outside. Many liberals and communitarians underpin principles of justice, which require an individual to sacrifice his interests to secure the welfare of others, with that justification available to convince one that his preference for vanilla ice cream is mistaken; yet, justice, unlike ice cream, is not merely a matter of taste. Principles of justice not based on objective moral principles are arbitrary at best and prejudicial at worst, without binding authority or persuasive moral force. Though Rawls claims the "conception of justice is a practical social task rather than an epistemological or metaphysical problem,"1 there must be some a priori, non-subjective commitment to justice, as well as positive laws, that compels individuals to sacrifice their self-interest. Transcendental morality alone provides a substantial answer to those-anarchists, narcissists, libertarians, individualists, racists, isolationists, and others-who question the obligation to serve the common good, i.e., sacrifice one's interests for others. Merely discerning the claims of justice is not enough; these claims must be legitimized. The gap between "is" and "ought" reflects the distance between factual claims and moral ones, between truth and motivation, between description and obligation.

#### That transcendental truth is the forms – they are the essence of the world that transcend space and time. The material world inherently lacks a capability to manifest the form and cannot generate true reality, only the forms themselves understood by reason allow for true moral and epistemic knowledge. Heyüman 15, <http://ftp.oxfordphilsoc.org/Documents/StudentPrize/2015_H1b.pdf> //scopa

**Forms** can be thought of **as abstract entities** or qualities that **are the essence of sensible things**. Take, **for example, an apple: Roundness, color and weight of the apple are all the properties that make up that apple, each of which is a separate form in itself**. According to Plato, two apples are “round” because they both partake in the form of “roundness”. This “partaking” in any form is what makes things share similar attributes. **All material objects owe their existence to these forms; whereas each form exists by itself, independently of the object that exemplifies the particular form**. In Phaedo, which is widely agreed to be the first dialogue Plato introduced the forms, forms are “marked as auto kath auto beings, beings that are what they are in virtue of themselves1 .” **Forms are transcendent to our material world in that they exist beyond space and time, whereas material objects occupy a specific place at a specific time**. Atemporal and aspatial features of forms have very important implications. First, this explains why **the form of F does not change**, and remains stable beyond a spatio-temporal world while particulars are subject to continuous change. Second, **since F does not exist in space, it can be instantiated in many particulars at once or need not even be instantiated to exist**. The forms are also pure. The roundness of an apple is one of its properties and roundness is only “roundness” in its pure and perfect form. Unlike forms, **material objects are impure, imperfect**, and are complex combinations of several forms. **Being is the ontological relation that ties the form of F to its essence, and each form of F is of one essence** (monoeides). It follows from these principles that each form self-predicates; each form of F is itself F. The form of beauty is itself beautiful, and Helen would not be beautiful if the form of Beauty were not beautiful itself. **The forms are real, sublime entities that belong to an intelligible realm that can only be grasped by reason. They are not subject to change; are stable and enduring, while particulars/material objects belong to this material world of change**, becoming and perishing in a Heraclitean flux. The Idea Behind Platonic Forms As can be seen from his early and middle period dialogues, Plato both explored ethical concepts such as “virtue” and “justice” just like his mentor, Socrates, and he also elaborated upon the essence of the 1 Silverman, A., Fall 2014 Edition, ‘Plato’s Middle Period Metaphysics and Epistemology’, Stanford Encyclopedia of Philosophy, p. 10 1 Hilary 2015 Joint 1st Prize: Sinem Hümeydan universe by questioning what there really is in this world of appearances. Plato’s theory of forms, then, can be thought to explicate basically two vital concerns of philosophical inquiry. First, the theory explores the question of how everything seems both to be changing and permanent at the same time. We know that the physical world we perceive through our senses is exposed to continuous change by “becoming” and “ceasing to be2 ”. Nonetheless, there is also permanence beyond what seems to be changing and that can only be grasped by reasoning. Second, the theory of forms is an attempt to find the answer to the question of how people can live a happy and fulfilling life in a world that is ultimately defined with beginnings and endings, and is exposed to change in every possible respect. In the Republic, Plato poses questions about moral concepts in an effort to demonstrate that the life committed to knowledge and virtue will result in happiness and self-fulfillment. To achieve happiness, one should render himself immune to changes in the material world and strive to gain the knowledge of the eternal, immutable forms that reside in the intelligible realm. Indeed, Plato splits the existence into two realms: the visible realm and the transcendent realm (intelligible realm) of forms. **The visible realm is the physical world that is perceived through senses, and is susceptible to “becoming” and “ceasing to be”. On the contrary, the intelligible realm represents the ultimate reality, is enduring, and is accessible only via reasoning** or intellect. Furthermore, Plato believes that this visible world is an imperfect model of the transcendent realm of forms. As is depicted in his famous Allegory of Cave, he thinks that everything perceptible through senses is like the shadows on the Cave Wall, or merely imperfect representations of the reality. Since **what we perceive through our deceptive senses in this world of appearence are merely shadows of reality, one cannot have any genuine knowledge of these things, but can only have beliefs/opinions** about these objects. In other words, Plato thinks that one can only have “knowledge of forms and of Forms one can only have knowledge3 .” Because forms are the only objects of knowledge, individuals should endeavour to reach the intelligible realm and endow themselves with the knowledge of forms in order to achieve a happy and fulfilling life. Plato employs the Sun metaphor, which represents the form of “Good” to compare intelligible and visible realms. As the Sun provides the light to see the physical world, the “Good” provides the power to “know”, and is not only the ultimate cause of knowledge, but it is also the object of truth and knowledge. Being virtuous or pursuing good relies on having the knowledge of the Good, and because forms are the only objects of knowledge, one can only live a fulfilling life and pursue good if one knows the Form of Good. Plato’s Arguments for the Forms and Concluding Remarks According to Plato, reality is very much associated with objectivity. His argument from objectivity asserts that the more objective concepts are of higher reality, and that because **what we perceive via our senses is usually deceitful, the objects of experience cannot be real entities**. Besides, **it is possible to form different subjective views of the same objects; depending on the perceptual or mental states of the observer**. However, forms represent a higher objectivity, and thereby reality through a dialectic process, which is illustrated in the hierarchical system of forms and physical objects, “good” being first among others. Plato appeals to mathematical examples to further his arguments and states that the most definite knowledge is the knowledge of mathematics, and that this knowledge cannot be gained via senses or experience, but only by reasoning. For example, we know for certain that the sum of the interior angles of a triangle is 180 degrees, yet we also acknowledge that no such perfect triangle exists in the world. Then, he concludes, if these abstract entities do not reside in this world, there must a different realm of such perfect forms outside this world of experience that is ultimately real.

#### Prefer –

#### 1. Infinite regress – any question of empirical morality begs the question of a higher understanding which is the form of that object, otherwise we could always ask how to measure the good infinitely. At worst form is always a prior question since it’s what we refer a good material object to when we attempt to articulate its goodness.

#### 2. Performativity - thoughts and ideas can only exist insofar as the theory of the form is true since it is what defines our ability to generate those thoughts in the first place.

#### 3. Constitutivism – Transcendental forms are constitutive of every object and idea since there is necessarily an essence to their existence that extends beyond their physical manifestation, and that each tries to strive for by necessity since the form is what guides the material.

#### Next, ethics are split between the deontic and the aretaic. Deontic theories guide ethics by looking at the actions of moral actors, whereas aretaic theories guide ethics by looking at the character of moral actors themselves.

#### Prefer the aretaic:

#### [1] Descriptively – The aretaic provides an infinitely richer vocabulary for evaluating actions that extends beyond goodness and badness. For example, deontic fwks can’t distinguish admirable vs praise worthy actions.

#### [2] Deontic theories collapse – If agents were conditioned properly, they would independently take the right actions, which proves there cannot be a net benefit to deontic theories.

#### [3] Motivation – A. The aretaic improves citizens’ moral standing. People can always opt-out of a deontic theory but by focusing on the aretaic we improve the moral character of citizens, causing them to act ethically out of their own volition. B. The aretaic allows people to understand the intrinsic nature behind their actions; they are no longer following an abstract theory but making the choice they think is correct.

#### Next, the only ethics consistent with the aretaic is a virtue paradigm: This does not presuppose descriptive normative claims; we rather focus on developing agents to make them virtuous. Reader.

[Reader 2k (Reader, Soren. Late Professor of Philosophy, Durham University “New Directions in Ethics: Naturalism, Reasons, and Virtue.” Ethical Theory and Moral Practice, Vol. 3, No. 4, Dec. 2000.)] SHS ZS  
**Virtue is a** free **disposition to act in certain ways under certain conditions**. Virtue ethics claims that **what is to count as a good action** or what is a good outcome **is** conceptually **dependent on claims about** **the virtue of an agent**. How is this dependence supposed to work? Where those after an explanatory account seek a conceptual connection with something like a normative 'in itself,’ **virtue ethicists** instead **explore the** concrete **dependence of moral activity on the possibility of learning from** already **virtuous agents**. They hold that **the key to moral rationality is** found **in moral education**. Ethics begins with the apprentice moral agent: the child, or the foreigner, or the damaged person in rehabilitation are all examples. These **beginner-agents learn from** the experienced, **wise moral agent by copying**, by mimicking in **their actions** the actions of the virtuous agent. This mimicking, or 'going on in the same way', does not presuppose that the learner agent acquires any representations of how the world is (i.e., beliefs), nor that they acquire the ability to report on or provide justifications for what they do. **Virtue is learned by cottoning on to virtuous ways of doing things**, going on to do the same, **then going on to do the same in new ways**, once they have mastered the skill.16 The way virtue and character is supposed to be basic here is simply displayed in the analogy: **there is and can be nothing 'behind' the expertise of** the phronimos **which can explain or justify it** (any more than there is anything 'behind' the expertise of the doctor or the navigator, to use Aristotle's examples at NE 1104b7-l 1). Of course, plenty more can be said about it, and shortcuts can be found to aid the learn ing of those who have already mastered other skills (so competent rule-fol lowers can learn from being given rules, just as competent grammarians can learn a new language from the grammar). But we should not confuse what it is possible to say about the skill of being moral, with what constitutes it.

#### Solipsism is true - We can only verify that our consciousness exists. Only virtue solves because even if only one subject exists, virtue resolves the problem of acting for another because it’s a question of developing the self to be good, otherwise we couldn’t generate obligations.

#### Thus, the standard is promoting virtue.

#### Prefer:

Impact Calc: 1) The framing evaluates offense based on whether or not an action allows for the procedural cultivation of virtues— takes out calc indicts since we don’t need to know what a virtue is, we just need to have humans making decisions. 2. Reject calc indicts – a) just proves being virtuous is hard but moral practice is the point, so it just proves the aff is necessary b) actions aimed toward the good are virtuous resolved by intuitions. Anything else collapses to skepticism since we can’t trust our own judgements about morality.

## Offense

#### I defend that the member nations of the World Trade Organization ought to reduce intellectual property protections for medicines.

#### [1] IP rights structurally prevent all people from accessing the same intellectual virtues and violates the virtue of empathy by not giving life-saving medication to poorer nations.

**Morabito 15** - “Essay: Pharmaceuticals and Global Justice: Balancing Public Health and Intellectual Property Rights” by Marisa Morabito [https://scholarship.shu.edu/cgi/viewcontent.cgi?referer=https://scholar.google.com/&httpsredir=1&article=1808&context=student\_scholarship] //ahs emi

The approach to IP rights and global pharmaceutical industry thus requires a different philosophical, ethical framework. I would like to suggest a virtue and human flourishing approach which is based on human good and well-being and helping others to also be able to flourish by living ethical lives which parallels Nussbaum's capabilities approach, a virtue ethics view.la Virtue ethics is an ethical system based upon adherence to a principle. Virtue ethicists believe that there are "certain ideals toward which we should strive...[to allow] for the full development of our humanity" by looking at what humans can become.ls The virtue ethicist focuses on humans achieving their maximum potential while having virtues of compassion, generosity and courage.l6 For instance, "a person who has developed virtues will be naturally disposed to act in ways consistent with moral principles.lT Virtue ethics emphasizes character formation and habits to foster positive improvements in the world.18 A virtuous person wants to behave well and looks at a circumstance and decides what is right and wishes to behave according to what is right.le This view aligns with Nussbaum who takes a capabilities view which is based on the idea that well-being is "of vital moral importance [and]... individuals must have real opportunities to live well and to flourish as human beings.20 Nussbaum's capabilities view looks at the important functions of a human being and looks at what institutions are doing for those capabilities.2r For example, functions and capabilities are set and then we observe whether intuitions are promoting human flourishing based on these principles.22 If the standards are not being met, we must try to change the institution's policies to allow for human flourishing.23 Nussbaum's capabilities approach explains what flourishing is and tries to achieve this flourishing worldwide.2a Based on this theory, IP rights "generate a material circumstance for a majority of the world in which we can't maximally exercise our intellectual capacities, and thus we fail as a species to maximally flourish."25 Therefore any further discussion of IP rights and the global pharmaceutical industry must proceed clearly focused on adherence to a moral principle; maximizing human flourishing. Successful efforts in South Africa were only achieved when the policy became virtue/principle based. In the Minister of Health v. Treatment Action Campaign, the court ruled that the government breached the people's right to have access to health care services when it prevented drug availability to pregnant women in order to stop mother-to-child HIV transmission.26 2.4 million people have received free anti-retroviral treatment in 2013 which was a 1.4 million increase from 2009 while over 20 million people have been tested for HIV since the government created counseling and testing programs in2010.27 South Africa's goal is to have an extra 4.6 million people receiving anti-retroviral treatment within the next five years.28 Furthermore, South Africa has reduced the prices of anti-retrovirals and there was a tender to make one ARV pill which can be used once instead of having to take three pills two times per day which means there will be fewer pills used and consumed.2e Although there have been successes, the South African population continues to have the highest number of HIV/AIDS infected people globally as millions still lack access to ARVs.30 The ongoing tension between the fight against poverty and IP rights continues to persist at the mercy of humans in poorer nations who are unable to afford medications to cure their illnesses and diseases which hinders maximum human flourishing and does not express good character. In her article "Common Ground: The Case for Collaboration Between Anti-Poverty Advocates and Public Interest Intellectual Property Advocates" Cantrell states that with intellectual property advocates, their focus is on the individuals rights to create, appropriate, and recreate.3l However, the tension between the fight against poverty and the protection of intellectual property rights is evident as the IP movement's success is frequently at the expense of the poor.32 Cantrell continues to state that Martha Nussbaum's virtue theory of human capabilities suggests that every person should have the ability to live a flourishing life yet the IP movement has placed limitations on what a person can do and be as a result of continued poverty.33

#### [2] Removing IPs fosters the social relationships needed to cultivate communal virtues.

**Grimmelmann 9** - “Ethical Visions of Copyright Law” by James Grimmelmann [https://ir.lawnet.fordham.edu/cgi/viewcontent.cgi?article=4433&context=flr] // ahs emi

Another frequent trope is that of "community."' 172 There's a reason that "community site" is a web 2.0 buzzword for anything with communicative user-generated content features: people who create and share freely with each other aren't just taking part in arms-length transactions; they're building social institutions. 173 Yochai Benkler and Helen Nissenbaum give a virtue-ethics analysis of this phenomenon. For them, deeper principles of autonomy, democracy, and mutual respect are furthered by a culture of mutual sharing-and participation in such a culture teaches individuals how to be virtuous. 174 To summarize, then, "commons" and "sharing" rhetoric prizes voluntary authorial contributions to a pool on which anyone is free to draw. These tropes help tell a story about how people depend on the commons, so that placing material into the commons becomes an ethical act. It also helps create bonds of respect, honor, and enthusiasm between authors and grateful audiences-as well as fueling future repetitions of this exchange as audiences become authors themselves who, in turn, share with the commons, and so on. Like the default ethical vision, this view explains how authors and audiences can behave ethically toward each other-but it does so in a way perhaps less fraught with obligation.

#### [3] Communitarian open-source platforms for developing biotechnology cultivate charity-based virtues and intellectual virtues aimed at healing the world of ailments

Opderbeck 07, David W. Opderbeck, Maine Law Review Vol. 59 No.2 (2007) “A Virtue-Centered Approach to the Biotechnology Commons (Or, The Virtuous Penguin)” [https://digitalcommons.mainelaw.maine.edu/mlr/vol59/iss2/5/] Accessed 8/11/21 NPR

The virtue ethics notions of community and practices seem to map well onto the open source space. As Yochai Benkler has noted, open source communities require a system of "social-psychological" rewards in order to flourish. 75 Such rewards can include the sort of "internal goods" found in Maclntyrian "practices." 76 For example, a coder working on an open source software project might participate, at least in part, for the joy and satisfaction inherent in creating an elegant solution to a technical problem. 77 In addition, mature open source projects do not proceed aimlessly, but include standards of excellence established by the community and usually canonized by an influential individual or small group of individuals. 78 Finally, a pillar of open source production is the systematic extension of the project through the continuous feedback provided by numerous distributed workers. 79 A tension might arise, however, between Maclntyre's emphasis on a community's authoritative text or voice and the notion of open source production as an enterprise comprised of essentially self-actualizing individuals. In fact, Yochai Benkler and Helen Nissenbaum emphasize the virtue of "autonomy" as a core aspect of a virtue ethics approach to commons-based peer production. 80 Benkler in particular emphasizes the ways in which open source peer production contributes to justice by allowing space for individual autonomy.81 But open source communities should not be conceived of as fractiously individualistic. A successful, long term open source community requires an authoritative voice or voices that regulate exchange, lend status to social-psychological rewards, and canonize valuable contributions to the project. 82 Open source production can indeed sometimes provide more space for individual creativity and expression than traditional hierarchical production, but such creativity and expression should be conceived in terms of virtues that lend themselves to communal practices, with such practices embedded in the narrative tradition of the community. Once open source communities are conceived in Maclntyrian terms, it is possible to identify virtues that support the flourishing of such communities. Benkler and Nissenbaum identify three "clusters" of virtues that relate to peer production: (1) "autonomy, independence, liberation"; 83 (2) "creativity, productivity, industry"; 84 (3) "benevolence, charity, generosity, altruism"; 85 and "sociability, camaraderie, friendship, cooperation, civic virtue." 86 The first cluster seems difficult to relate to the communitarian axis of virtue ethics. As an example of the "virtue" of autonomy, Benkler and Nissenbaum propose "independence from the wide-ranging commercial entities influencing our actions and choices as well as from the typical array of institutional entities, whether employers, banks, agents of government, or whoever." 87 In his important book The Wealth of Networks, Benkler stresses autonomy as a fundamental value promoted by open source production, but not from a virtue ethics framework. 88 In The Wealth of Networks, Benkler seems to approach the question of autonomy from a Kantian perspective. 89 "Autonomy" seems better suited to the Kantian perspective Benkler takes in The Wealth of Networks than to the virtue ethics approach he takes with Nissenbaum. It may be true that commons-based production increases individual autonomy by providing alternatives to information flows produced by traditional commercial providers. But individual autonomy should not be conceived as a "virtue." Rather, some notion of autonomy may be a component of the eudemonia toward which the virtues direct human practices. And the virtues, as instantiated in practices and traditions, are never merely self-directed. Practices and traditions are by definition communal, not merely individual. A better approach to the question of autonomy within a virtue ethics framework of open source production would be to focus on the virtue of "respect" for the autonomy of others. If human flourishing requires that people have some capacity to make autonomous choices, then respecting the choices of others, and fostering communities in which such choices can be exercised, is an important virtue. 90 Viewed this way, it is possible to identify practices and traditions that embody this virtue. Benkler and Nissenbaum's focus on "creativity, productivity, [and] industry" seems closer to the heart of virtue ethics. 91 They helpfully note that creativity, productivity, and industry can be considered part ofa Maclntyrian "practice. "92 Peer production provides additional avenues for individuals to engage in creative and productive work, and thus can facilitate valuable practices. 93 In addition, Benkler and Nissenbaum note that peer production encourages the "other-regarding" virtues of "benevolence, charity, generosity, [and] altruism." 94 Participants in open source communities give time, resources, and talents to the project, ordinarily without direct financial remuneration. 95 As Benkler and Nissenbaum note, however, the literature concerning open source culture is ambiguous concerning whether participants offer their time, resources, and talents for altruistic reasons or as part of an essentially self-interested medium of exchange. 96 Finally, Benkler and Nissenbaum focus on the virtues of "sociability, camaraderie, friendship, cooperation[, and] civic virtue." 97 It is here that their link between virtue ethics and peer production is perhaps most salient. This cluster of virtues involves providing resources to a community engaged in a common project with a common goal. The concept is similar, Benkler and Nissenbaum note, to the American founders' notion of politics as contribution to the public good. 98 Whatever their psychological motives, the multifarious contributors to an open source project provide small inputs of time, resources, and talent, which cumulate to a much larger good. B. Virtue and Biotechnology as an Environmental and Public Health Community If virtue ethics concepts can apply generally to open source production, can they apply to biotechnology, and specifically to open source biotechnology? Benkler and Nissenbaum argue that the ethical implications of any technology include not only the uses to which a purportedly "neutral" technology is put, but also the manner in which the technology's architecture and functionality affect those uses. 99 Here they helpfully draw on technology and society theorists such as Marshall McLuhan and Lewis Mumford. 100 Open source production, Benkler and Nissenbaum suggest, structurally incorporates virtues that lead to greater human freedom. If we fail to encourage open source production, "[ w ]e might miss the chance to benefit from a distinctive sociotechnical system that promotes not only cultural and intellectual production but constitutes a venue for human character development." 101 In this vein, we can view biotechnology, like the communications networks with which Benkler usually is most directly concerned, as another medium of information exchange. It is tempting to draw direct parallels between computer information networks and biotechnology. Computer networks are controlled by computer code, such that control over the code equals control over the content delivered across the network. 102 A society that values the free exchange of ideas should therefore value an open code architecture across such computer information networks. Similarly, one could suggest that biological organisms are controlled at least to some extent by genetic code, and that those who are able to control genetic code through biotechnology will be able to control the organism, including people. The distribution of control over genetic code across peer production networks then could represent a means of democratizing control over life itself. I have previously noted a number of difficulties with this approach. 103 In particular, it is not so simple to tease out a "code layer" in a living organism that might be amenable to peer production. 104 Although DNA is a type of code, it is far more complex than a typical computer program, and the hardware and craft knowledge needed to isolate and manipulate genetic code is not widely available. 105 Nevertheless, there may be a role for open source production in biotechnology at the broad level of basic research and large-scale genomic databases and at the level of certain enabling technologies. 106 For example, the Cambia "BIOS" initiative and the HapMap project represent steps in this direction. And, it is at this level of basic "upstream" research that fears of a biotechnology anticommons are most tractable. The deadweight loss of patent protection in this arena can represent significant human suffering. The debates about biotechnology patents, then, are essentially debates about information-code-that concerns public health. We are concerned about access to biotechnology and biotechnology innovation because of the immense promise and perils of this technology as it relates to human health. Biotechnology could hold the key to a cure for AIDS or the safe disposal of the world's toxic waste. It also could generate vast waves of environmental and social disruption, for example, if non-fertile genetically modified crops hybridize with indigenous food supplies and render them sterile. In this regard, it should be clear that, from a virtue ethics perspective, it is not enough to treat biotechnology as simply a product in a market. Although the products of biotechnology practice can be commodified and traded in markets, and although such markets can be an important component in biotechnology policy, markets are not the raison d'etre of biotechnology. Biotechnology, then, is more than a set of products; it is a Maclntyrian practice that seeks to improve human health and wellbeing. In his keynote address at BIO's 2005 annual convention, BIO President and CEO James Greenwood told the conferees, "[Y]ou serve every man, woman and child on earth. And even more impressively, you serve the uncountable billions of humans who will inhabit this planet after we are gone." 107 Greenwood expressed the biotechnology community's vision, hyperbolically but no doubt sincerely, as follows: The convergence of systems biology, genomics, infomatics, proteomics, nanotechnology and personalized medicine bring us to the threshold of a new era: In the biotech century, using genetically enhanced crops, we will better feed an increasingly hungry world. In the biotech century, we will harness enzymes to convert plant waste to fuel and to biodegradable plastics, reducing our dependence on oil. In the biotech century, we will be able to outpace the tortures of[D]arwinian natural selection and its afflictions of disease. There is no more noble-and no more heroic-mission than this. 108 Greenwood's sentiments are echoed--even amplified-in a promotional video produced by BIO entitled "Biotechnology: Knowledge Serving Life." 109 The video adopts the elegiac tone of a science museum film or public television documentary and intercuts brief comments from cancer and cystic fibrosis patients, optimistic and earnest talking-head scientists projected against CS I-like blue-tinted backgrounds filled with wiggling microorganisms, and colorful images of Midwestern farms and Asian village weJls. The narration borders on messianic. At the video's close, the narrator tells us: Dreams begin with inspiration and flourish with determination and courage. Such are the dreams of today's biotechnology leaders. Their dream of improving the human condition offers hope to those who suffer, relief to those who are ill, and fullness of life to those we love. Within our reach is a future unimaginable a generation ago. Think of a world where starvation is replaced with healthful diets, where manufacturing products and energy are made with natural renewable resources, where our environment is preserved for tomorrow's generations. Biotechnology: furthered by faithfully exploring the unknown and boldly embracing the possible. The world's great new frontier is upon us. 110 The video includes similar teleological comments from industry leaders. For example, Dr. Leroy Hood, President of the Institute for Systems Biology, says: If the mission of man is to make suffering less, if the mission of man is to deal with hunger and starvation, and if the mission of man is to educate and to better the population, I would argue that the kinds of technologies that we're talking about here are going to be utterly key in the future for doing that. 111 Likewise, Robert Beach, Ph.D., President of the Donald Danforth Plant Science Center, says: I'm terribly optimistic of the science. If we do it all right, we will make a better world, a world that is cleaner in its environment, a world that uses less agricultural chemicals and that we really can pull this all together through integration of genetics and engineering and agriculture and manufacturing and politics and policy, and it all is gonna work. 112 Of course, these are public relations pieces as much as they are true reflections of sentiments in the biotechnology community, and one might be permitted a bit of cynicism about the motivation of altruism versus motivation derived from the prospect of cashing out stock options in a buy-out or public offering. These sentiments do, however, reflect a genuine sense of purpose in the biotechnology community, however attenuated or pinched il might be at times by other priorities. That real sense of purpose can form the basis of practices that extend the biotechnology narrative towards the ultimate goal of human flourishing. 113 Because of this linkage with healthcare and the environment, it is useful to examine how virtue ethics relates to those fields. Fortunately, virtue ethics concepts are well-developed both in relation to health care and the environment. In the next sections, I will sketch some relevant virtue ethics perspectives on heath care and environmental issues. I will then offer some suggestions for how those perspectives could relate to biotechnology intellectual property policy.

#### [4] Property rights are incoherent. Everything material intrinsically has a form that’s universally accessible to all people. That means individuals can’t claim ownership to something everyone has access to.

## Adv

#### IP regimes are tied to rising biodiversity loss for medicinal plants.

**PAMUN 14 –** “PAMUN Xviii Research Report— Question Of Intellectual Property And Biodiversity” [http://asp-edu.net/pamun/pamun2013/wp-content/uploads/2014/04/OK\_EDITED\_-UNCTAD-biodiversity-and-IP-1.pdf] // ahs emi

During the last few years, **biodiversity has been lost at an unprecedented rate throughout the world in every ecosystem. According to the FAO, about 75% of the genetic diversity found in agricultural crops has been lost over the last century,** and this phenomenon continues. It is imperative that we conserve agricultural biodiversity: **higher biodiversity of agricultural crops helps increase yield stability and soil fertility and gives species the ability to adapt to changing conditions.** High agricultural biodiversity **also helps protect our health by ensuring sustainable production in medicinal plant use systems.** Agricultural **biodiversity loss and the present IPR legislation are inextricably tied. IPRs continue to homogenise agricultural production and medicinal plant use systems and could reduce crop variety development.** Our health and our environment is negatively affected, and it is of utmost importance to conserve our agricultural biodiversity. Evolution of IPRs on biological resources As stated before, IPRs are rights to new ideas and information, which allow the creator to prevent the imitation or the commercial exploitation of his/her creations. IPRs have existed for centuries; however, the use of IPRs on living organisms such as GRs is a recent phenomenon. In 1930, the U.S. government passed the U.S. Plant Patent Act, which granted IPRs to new plant varieties with the exception of sexual and tuber-propagated plants. Other countries also extended such forms of IPRs, and in 1957, the International Union for the Protection of New Varieties of Plants (UPOV) was formed, which was established by the International Convention for the Protection of New Varieties of Plants that was signed in 1961. The convention was revised in 1972, 1978, and 1991 in Geneva, and each member state is expected to adopt laws that meet the requirements of the convention. With the latest revision in 1991, the convention recognizes new plant varieties as intellectual property and extended international PBRs. Furthermore, in 1972, the U.S. Supreme Court ruled that the patent claim made by the microbiologist Ananda Chakrabarty for a genetically engineered bacterial strain was permissible, which made it clear that anything man-made, including human genetic material, could be patentable. The legally binding TRIPS agreement in 1995 (explained in detail below) further imposed private IPRs on plant varieties, increasing the control of governments and large corporations over biogenetic resources. International Treaties and Agreements The link between IPRs and biodiversity has been shaped by numerous agreements and institutions. The Convention on Biological Diversity (CBD) and the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) are the two principal agreements on this issue. Moreover, organizations such as the World Intellectual Property Organization (WIPO) and the World Trade Organization (WTO) have also become more active in dealing with this issue, and various megadiverse countries (see Major Countries Involved for definition) such as India, Costa Rica, and Mexico are passing laws in order to deal with this issue. The most important agreement on the conservation of biodiversity is the Convention on Biological Diversity (CBD), which is often regarded as the founding document of global commitment to sustainable growth. The CBD is a legally binding, multilateral treaty signed on June 5th, 1992. It has been signed by 168 nations, 157 of which have ratified the convention. The convention has three main goals: the “conservation of biological diversity”; the “sustainable use of the components of biological diversity”; and the “fair and equitable sharing of the benefits arising out of the utilization of genetic resources”. The treaty recognizes the sovereign right of states over GRs, and it also demands the respect and preservation of associated traditional knowledge at the national level. In fact, article 8(j) of the CBD states: ““Each contracting party shall [...] respect, preserve and maintain knowledge, innovations and practices of indigenous and local communities embodying traditional lifestyles relevant for the conservation and sustainable use of biological diversity and promote their wider application with the approval and involvement of the holders of such knowledge, innovations and practices and encourage the equitable sharing of the benefits arising from the utilization of such knowledge innovations and practices”, thus recognizing the collective rights of indigenous and local communities, and encouraging member nations to follow the ABS provisions of the agreement, which aim to share GRs equitably with the indigenous communities. Moreover, to improve the implementation of the CBD, two supplementary agreements to the CBD have been signed: the Cartagena Protocol of 2002 and the Nagoya Protocol of 2010. The Nagoya Protocol (Appendix IV), which is explained in the Previous Attempts to Solve the Issue section, deals with the implementation of the third objective: fair and equitable sharing of the benefits arising out of the utilization of genetic resources. Another important legally binding agreement is the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) in 1995. All 162 members of the WTO are signatory states of the agreement. Before the TRIPS agreement was signed, IPRs were restricted within countries; however, with the national treatment article in the TRIPS agreement, every signatory state should ensure that the rights given by IPRs are applied to locals and foreigners alike. In relation to plant varieties, it is important to note that the TRIPS agreement requires that plant varieties, along with microorganisms and microbiological processes, be eligible for IPR protection. In article 27.3(b) of the TRIPS agreement, signatory member states are not permitted to exclude microorganisms and microbiological processes from patentability, and they are expected to provide protection of these new plant varieties through patents, or an “effective” sui generis system. In other words, the agreement requires an exclusive protection for plant varieties, be it in the form of patents or a new sui generis system, which the WTO decides is effective or not. Another form of protection that many developing countries are also adopting as a sui generis system is the model of plant variety protection that is provided by the UPOV Convention (PBRs), whose standards are pretty much equivalent to patent protection. Hence, the TRIPS agreement not only imposes exclusive, private IPRs on biological resources, but it also does not attempt to protect indigenous and local community knowledge. Unlike the CBD, which aims to protect TK and maintain biodiversity, the TRIPS agreement legitimizes the commercial use of biodiversity-related knowledge. However, the TRIPS agreement does require the review of Article 27.3(b)–the article that prohibits the exclusion of microorganisms from patentability and provides protection for plant varieties–which has facilitated discussion on the issues with the article (see ‘Previous Attempts’ for detailed information). It is also important to note that both agreements are highly flexible, even though they contradict each other in many aspects. Many articles of the TRIPS agreement can be used by indigenous communities to protect their interests. Article 8 allows members to protect public interest through legal measures and environmental protection could be justified as as being in "public interest". Moreover, article 27(2) allows members to exclude inventions from patentability to safeguard against "serious prejudice" to the environment. The CBD, on the other hand, ensures that it does not conflict with the implementation of any other international agreement. Article 22 of CBD states: “The provisions of this Convention shall not affect the rights and obligations of any Contracting Party deriving from any existing international agreement, except where the exercise of those rights and obligations would cause a serious damage or threat to biological diversity”. This article provides countries with a leeway; although both agreements are legally binding, countries can implement the TRIPS agreement without adhering to obligations of the CBD. Impacts of present IPR legislation Exploitation of traditional knowledge Existing IPR systems, particularly patents, increase the risk of exploitation of traditional knowledge. Existing IPRs are expensive and challenging to acquire, failing to provide local and indigenous communities incentives to protect or capitalize on their traditional knowledge even though traditional knowledge is often shared by all members of the community and passed through the generations. Commercial Exploitation of Plant Varieties and GRs The TRIPS agreement is intended to provide private IPRs on any products, be they biogenetic resources or not, in order to ensure that trade goes smoothly and corporate interests are protected internationally. In the process, the agreement provides exclusive control of plant varieties to corporations and individuals that they have patented. **The privatization of IPRs as a result of the TRIPS agreement has caused commercial and industrial interests to control the resources of developing countries that are rich in biodiversity, leading to biological uniformity and in turn biodiversity loss** (explained below). Besides, **these private commercial interests are encroaching upon common indigenous and local community knowledge**, which is another negative impact of the TRIPS agreement. Biological Uniformity The present IPR legislation causes biological uniformity because of growing private commercial interests, which directly causes biodiversity loss. Countries that extend IPRs to plant varieties will be establishing an IPR system where few corporations and individuals prohibit others from making or using the protected variety or any product containing protected genetic information, and push its production for profits. **Farmers will be faced with production restrictions, while scientists will be faced with research restrictions.** All in all, the present IPR legislation not only **discourages the growth of new and different plant varieties, but it also restricts researchers from freely using the genetic information for research into diseases or for making new and more effective plant varieties.** Hence, **this** reduces the availability of biodiversity and **leads to the homogenization of agricultural production and plant use systems.** For example, Monsanto, an agrochemical and agricultural biotechnology corporation that is facing a surge of lawsuits, is also accused of biological uniformity. It owns such a large portion of the world's cotton seed supply that cotton farmers are not given access to non-GM cotton seeds. **These farmers are also not allowed to save, reuse, or even study the seeds due to biotech IPR laws, greatly hindering natural diversity.**

#### This causes Extinction.

Schelske 20 Why managing biodiversity risk is critical for the global economy By [Oliver Schelske](https://www.swissre.com/profile/Oliver_Schelske/ip_bdeb3f), Natural Assets & ESG Research Lead, Swiss Re Institute & [Bernd Wilke](https://www.swissre.com/profile/Bernd_Wilke/ip_567f65), Senior Risk Manager, Group Risk Management Published on:23 Sep 2020 <https://www.swissre.com/risk-knowledge/mitigating-climate-risk/managing-biodiversity-risk-is-critical-for-global-economy.html>

Biodiversity and ecosystem services underpin our daily lives and many of our products and services. From the water we drink to the food we grow and the resources we use in manufacturing, we would be at a loss without Mother Nature. But from the wildfires raging in California to forest loss in the Amazon, it is clear many of these ecosystems are suffering. And as the United Nations points out in the promotion of its [2020 Biodiversity Summit](https://www.un.org/pga/74/united-nations-summit-on-biodiversity/), the COVID-19 pandemic has “further highlighted the importance of the relationship between people and nature”. “We are reminded that when we destroy and degrade biodiversity, we undermine the web of life and increase the risk of disease spillover from wildlife to people,” it says. Understanding the extent and impact of biodiversity and ecosystem decline is key to minimizing further damage, and making informed decisions that prioritise a more sustainable future. This is why the Swiss Re Institute has created the [Biodiversity Ecosystem Services (BES) Index](https://www.swissre.com/institute/research/topics-and-risk-dialogues/climate-and-natural-catastrophe-risk/expertise-publication-biodiversity-and-ecosystems-services.html). It brings together masses of data and research from scientists around the world to present a kilometre-by-kilometre view of the state of biodiversity-related ecosystem services. We can use this information to become more risk-aware, and inform sustainable future development. And this wealth of data for the first time gives insurers the possibility to adapt their future risk pricing, selection and products to reflect the evolving risks caused by the declining health of biodiversity and ecosystems. The insurance industry has begun to realise the impact of climate change and other environmental decline on risk profiles. And it has become apparent that the risks are both physical – for example, the increasing size and amount of pay-outs following hurricanes and tropical storms – as well as reputational. There is now a recognition that coal, oil and gas policies, for example, have an impact on external perceptions. But until now, there has been limited recognition or ability to quantify the changing risk profile of different locations. Swiss Re’s new tool takes us beyond the awareness stage and gives us information we can act on. As Oliver Schelske, environmental and business economist at Swiss Re Institute and co-author of the new study, explains: “Biodiversity and ecosystem services are the foundation for life. They underpin economic activity. Here, we are talking about the health of forests and other ecosystems and the plants and wildlife within them. It impacts processes like water purification, pollination and soil formation. This affects food security, fresh water, and also has cultural, religious, educational and aesthetic importance.” The index paints a grim picture. There are 39 of 195 countries with fragile ecosystems on more than 30% of their land. Among them are Malta, Israel, Cyprus, Bahrain and Kazakhstan. The risks presented by this weakening of the natural world vary country by country. And within countries too. Some economies are more dependent on ecosystem services than others – countries with high dependency on agriculture, forestry and fishing, for example, may be more at risk from a decline in the natural world. These include countries with huge and growing populations like Kenya, Vietnam, Pakistan, Indonesia and Nigeria. But while more diversified economies may feel less of a direct impact, they are far from immune. Everyone is affected by broad socio-economic vulnerabilities like food security and diversity, the ability to discover and develop new medicines, and water quality. The BES Index gives a detailed view of how the interplay of these factors affects the risk in any given location. This makes it possible for the insurance industry to incorporate biodiversity and ecosystem strengths and weaknesses into its risk selection and ultimately pricing in the future. This will make businesses and societies more resilient as they adapt and shift to make better use of resources and locations, influenced by premium prices and insurability. Bernd Wilke, senior emerging risk manager at Swiss Re and index co-author, says: “In the future the tool will allow the insurance industry to adjust and develop products and create nature-based solutions that take account of where in the world, on a square-kilometre scale, ecosystems are healthy or fragile. That information can be used to identify where to invest and where to restore.” He gives the example of property located near damaged mangroves and coral reefs, which might have higher premiums than that behind intact mangroves or reefs. These natural barriers provide crucial protection in areas that are more prone to flooding, erosion and tidal damage, and the tool can help promote identification and investment in them. Using the index can help insurers to not only make communities more resilient and better protected, but also promote the UN Sustainable Development Goals (SDGs) of Life on land, which Wilke says underpins all other SDGs. “If we don’t work with nature in a sustainable way, we don’t have the foundation for our economies and everything that depends on it,” he says. Biodiversity and ecosystem strength are particularly poignant in the midst of the COVID-19 pandemic. In fact, coronavirus could be a sentinel. All over the world, humans and animals are coming into closer contact than ever before. One of the largest potential reservoirs of future zoonotic diseases is in the rainforests of our world. And with deforestation we are making swift inroads into habitats. New roads are bringing greater connectivity to areas previously cut off. In the past, if a new disease was encountered somewhere remote it might have been days before an infected person reached the next tribe. Human expansion into wildlife areas, soaring globalisation and urbanisation, and risky nutrition patterns altogether have led to high-speed routes for future pandemics directly into our major cities. Conversely, making smart use of nature could help increase our resilience during future epidemic or pandemics. Schelske notes, "Sustainable exploration of nature can help us detect new medicine for current or future diseases. We have also seen that proximity and access to green areas in urban neighbourhoods has proven extremely important for mental health during the current pandemic." Like nothing else, the COVID-19 pandemic has created a sense of urgency around maintaining the healthy balance between humans and nature. As we all become increasingly aware of environmental changes, we will have a better foundation of understanding the costs of disrupting this delicate balance and putting a price on this in the future. Acting on this information is key to building a more sustainable and resilient future that benefits everyone.