## Overview

1] Interp – The negative must grant the aff presumption or permissibility.

A violation would be reading both or contesting one in the 2n.

Prefer –

A) Strat skew – Otherwise it incentivizes the 1n to read multiple NIBs and frontload the 1n with presumption and permissibility offense which is particularly bad since there isn’t a substantive truth to either side it’s a q of how long you can spend on it which means the neg wins substance every round.

B) Timeskew – I have to invest major time in the 1ar winning both because 2n flexibility can collapse to either one with a hidden trigger, only having to answer one or do weighing saves me half that time which is key in the 4 min 1ar.

C) Topic ed – spamming presumption and permissibility incentivizes the neg to only read things like skep and a prioris to collapse the debate to those layers.

2] Aff gets theory, DTD, No neg RVI, CI, aff theory first

3] The role of the ballot is to determine the truth or falsity of the resolution through a substantively justified ethical fw

#### 1. Ought is moral. **Chrisman 12**, Chrisman, Matthew [The Department of Philosophy in The School of Philosophy Psychology and Language]. "‘Ought’and Control." Australasian Journal of Philosopy 90.3 (2012): 433-451. //Scopa Ethical theorists are interested in the meaning of the word ‘ought’ largely because the paradigmatic way in English to state general moral principles as well as specific practical conclusions is with an ought-sentence. For example, Kant’s initial statement of the Categorical Imperative reads: ‘I ought never to act except in such a way that I could also will that my maxim should become a universal law’ [1785/1985: 402].1 And one of the most famous claims of applied ethics is Singer’s contention that ‘we ought, morally, to be working full time to relieve great suffering of the sort that occurs as a result of famine or other disasters’ [1972: 238]. Although we can state ethical principles and conclusions in other ways, I think it is no mistake that we often reach for ‘ought’ to do so. But what does ‘ought’ mean?

**2. Constitutivism: The ballot asks you to either vote aff or neg based on the given resolution a) Five dictionaries[[1]](#footnote-1) define to negate as to deny the truth of and affirm[[2]](#footnote-2) as to prove true which means its intrinsic to the nature of the activity b) the purpose of debate is the acquisition of knowledge in pursuit of truth. It’s a jurisdictional issue since it questions whether the judge should go outside the scope of the game.**

**4] If the affirmative reads a meta-ethic, the neg must concede the standard – a) Phil ed – it forces a meta-ethic debate which o/w since it is unique to LD and is a new form of education that doesn’t happen often b) Strat skew – anything else nullifies the time I spent reading the standard and you can frame out my offense c) Reciprocity – I can’t frame out the NC since I spoke first and you craft a strat in response to mine. The meta-ethic solves all your offense since you can still answer the top level framing of the aff which is the most important anyway.**

## AC

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

**Moral Realism is true – there is an ethical truth that exists metaphysically: relativism collapses since it assumes the universal truth of relativism**

#### And, that’s only accessible through procedural transcendental idealism – Motivation – empirical circumstances change based one each individual, only transcendent moral truths can motivate all agents absent those features.

#### 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] 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.**

#### 2] Metaphysics – the world is fundamentally an organism we are a piece of, everything is made of the same substance and consciousness is a cosmically natural form. Lanza 07, Robert. “Are We Part of a Single Living Organism?” The Huffington Post, TheHuffingtonPost.com, 27 Nov. 2011, [www.huffingtonpost.com/robert-lanza/are-we-part-of-a-single-l\_b\_981643.html.//Scopa](http://www.huffingtonpost.com/robert-lanza/are-we-part-of-a-single-l_b_981643.html.//Scopa) Consciousness is like an embryonic stem cell, the master cell of the body, which − instead of giving rise to muscle, bone and all the other tissues and organs of the body − gives rise to the biodiversity around us, to the entire ecosystem of the planet. When you think of a living organism, you think of how its parts operate as a unified whole, much like the workings of a fine watch. For instance, the cells in leaves produce food for a plant, converting the energy in sunlight into chemical energy that it can use as food. The cells in its stems and branches transport food and water from the leaves and roots to the whole organism. Of course, instead of branches, we vertebrates have bones for support, and muscles that give us the ability to locomote, to hunt and scavenge for food. This dynamic cellular interrelationship occurs at the interspecies level, as well, not only in our gut but on a planet-wide scale. We oxygen-breathing lifeforms continuously inhale oxygen (O2) and then exhale carbon dioxide (CO2); plants then take in the CO2 and use it in their photosynthesis process and in turn give off or “exhale” oxygen. But there’s a lot more to it than that. We animals interpret the world using space and time — “sensitive concepts,” which, according to [biocentrism,](http://www.robertlanza.com/biocentrism-how-life-and-consciousness-are-the-keys-to-understanding-the-true-nature-of-the-universe/) are forms in the mind, not hard, external realities. Indeed, with the advent of quantum mechanics, the old materialistic worldview has started to collapse. Alas! The mass of accumulated evidence − [the double-slit experiment](http://en.wikipedia.org/wiki/Double-slit_experiment), [quantum entanglement](http://en.wikipedia.org/wiki/Quantum_entanglement%20http://en.wikipedia.org/wiki/Double-slit_experiment) and the work of quantum logic and [Schrodinger’s cat](http://en.wikipedia.org/wiki/Schr%C3%B6dinger's_cat), among others − has the weight of a boulder. At first glance, it seems bizarre that a frog in the rain forest or a dolphin in the ocean should be directly connected to us. But they are the subjects of the same reality that interested  the physicist who proposed an experiment, [verified by Alain Aspect and his colleagues in 1982](http://prl.aps.org/abstract/PRL/v49/i25/p1804_1), that showed once and for all that at least on a quantum level, what happens locally is affected by nonlocal events. Surely this is what Spinoza predicted when he contended that consciousness cannot exist simply in space and time, and at the same time be aware, as it is, of the interrelations of all parts of space and time. Our individual separateness in space and time (as, for instance, the apatosaurus and velociraptors of the Jurassic Period, the pandas in China, or the mountain gorillas of East Africa) is, in a sense, illusory. We are all melted together, parts of an organism that transcends the walls of space and time. This is not, you understand, a fanciful metaphor. It is a reality. I have learned, as a biologist and biocentrist, that life is a complex play of cells, some that are around when you’re young, some when you’re old, but that all, regardless of species, are parts of one organism expanding and contracting in space and time in whatever shape and form it can

#### And, that allows us to correspond our natural epistemic facts through revision with our intuition – we have innate moral compasses because we have a sense of our life-form, in the same way our organs know how to perform its function properly.

### **FW**

Morals are determined by function—other interpretations fail to bridge the is-ought gap

Macintyre 81, Alasdair MacIntyre, After Virtue, 1981 [https://epistemh.pbworks.com/f/4.+Macintyre.pdf] Accessed 8/14/21 AHS//NPR

This change of character, resulting from the disappearance of any connection between the precepts of morality and the facts of human nature already appears in the writings of the eighteenth-century moral philosophers themselves. For although each of the writers we have been concerned with attempted in his positive arguments to base morality on human nature, each in his negative arguments moved toward a more and more unrestricted version of the claim that no valid argument can move from entirely factual premises to any moral or evaluative conclusion-to a principle, that is, which once it is accepted, constitutes an epitaph to their entire project. Hume still expresses this claim in the form of a doubt rather than of a positive assertion. He remarks that in **'every system of morality, which I have hitherto met with'** authors make a transition from statements about God or human nature to moral judgments: **'instead of the usual copulations of propositions, is, and is not, I met with no proposition that is not connected with an ought, or an ought not'** (Treatise Ill. i. 1). And he then goes on to demand 'that a reason should be given, for what seems altogether inconceivable, how this new relation can be a deduction from others, which are entirely different from it', The same general principle, no longer expressed as a question, but as an assertion, appears in Kant's insistence that the injunctions of the moral law cannot be derived from any set of statements about human happiness or about the will of God and then yet again in Kierkegaard's account of the ethical. What is the significance of this general claim? Some later moral philosophers have gone so far as to describe the thesis that **from a set of factual premises** **no moral conclusion validly follows as 'a truth of logic'**, understanding it as derivable from a more general principle which some medieval logicians formulated as the claim that **in a valid argument nothing can appear in the conclusion which was not already in the premises**. And, such philosophers have suggested, in an argument in which any attempt is made to derive a moral or evaluative conclusion from factual premises something which is not in the premises, namely the moral or evaluative element, will appear in the conclusion. Hence any such argument must fail. **Yet** in fact the alleged unrestrictedly general logical principle on which everything is being made to depend is bogus-and **the scholastic tag applies only to Aristotelian syllogisms**. There are several types of valid argument in which some element may appear in a conclusion which is not present in the premises. A.N. Prior's counter-example to this alleged principle illustrates its breakdown adequately; **from the premise 'He is a sea-captain'**, **the conclusion may be validly inferred that 'He ought to do whatever a sea-captain ought to do'.** This counter-example not only shows that there is no general principle of the type alleged; but **it itself shows what is at least a grammatical truth - an 'is' premise can on occasion entail an 'ought' conclusion**. Adherents of the 'no "ought" from "is" view' could however easily meet part of the difficulty raised by Prior's example by reformulating their own position. What they intended to claim they might and would presumably say, is that no conclusion with substantial evaluative and moral content and the conclusion in Prior's example certainly does lack any such content-can be derived from factual premises. Yet the problem would remain for them as to why now anyone would accept their claim. For they have conceded that it cannot be derived from any unrestrictedly general logical principle. Yet their claim may still have substance, but a substance that derives from a particular, and in the eighteenth century new, conception of moral rules and judgments. It may, that is, assert a principle whose validity derives not from some general logical principle, but from the meaning of the key terms employed. Suppose that during the seventeenth and eighteenth centuries the meaning and implications of the key terms used in moral utterance had changed their character; it could then turn out to be the case that what had once been valid inferences from or to some particular moral premise or conclusion would no longer be valid inferences from or to what seemed to be the same factual premise or moral conclusion. For what in some sense were the same expressions, the same sentences would now bear a different meaning. But do we in fact have any evidence for such a change of meaning? To answer this question it is helpful to consider another type of counter-example to the 'No "ought" conclusions from "is" premises' thesis. **From such factual premises as 'This watch is grossly inaccurate and irregular in time-keeping'** and 'This watch is too heavy to carry about comfortably', **the evaluative conclusion** validly **follows that This is a bad watch'**. From such factual premises as 'He gets a better yield for this crop per acre than any farmer in the district', 'He has the most effective programme of soil renewal yet known' and 'His dairy herd wins all the first prizes at the agricultural shows', the evaluative conclusion validly follows that 'He is a good farmer'. Both of these arguments are valid because of the special character of the concepts of a watch and of a farmer. **Such concepts are functional concepts; that is to say, we define both 'watch' and 'farmer' in terms of the purpose or function** which a watch or a farmer are characteristically expected to serve. It follows that the concept of a watch cannot be defined independently of the concept of a good watch nor the concept of a farmer independently of that of a good farmer; and that the criterion of something's being a watch and the criterion of something's being a good watch-and so also for 'farmer' and for all other functional concepts-are not independent of each other. Now clearly both sets of criteria-as is evidenced by the examples given in the last paragraph-are factual. Hence any argument which moves from premises which assert that the appropriate criteria are satisfied to a conclusion which asserts that That is a good such-and-such', where 'such-and-such' picks out an item specified by a functional concept, will be a valid argument which moves from factual premises to an evaluative conclusion. Thus we may safely assert that, if some amended version of the 'No “ought" conclusion from "is" premises' principle is to hold good, it must exclude arguments involving functional concepts from its scope. But this suggests strongly that those who have insisted that all moral arguments fall within the scope of such a principle may have been doing so, because they took it for granted that no moral arguments involve functional concepts. Yet moral arguments within the classical, Aristotelian tradition-whether in its Greek or its medieval versions - involve at least one central functional concept, the concept of man understood as having an essential nature and an essential purpose or function; and it is when and only when the classical tradition in its integrity has been substantially rejected that moral arguments change their character so that they fall within the scope of some version of the 'No "ought" conclusion from "is" premises' principle. That is to say, 'man' stands to 'good man' as 'watch' stands to 'good watch' or 'farmer' to 'good farmer' within the classical tradition. Aristotle takes it as a starting-point for ethical enquiry that the relationship of 'man' to 'living well' is analogous to that of 'harpist' to 'playing the harp well' (Nicomachean Ethics, 1095a 16). But the use of 'man' as a functional concept is far older than Aristotle and it does not initially derive from Aristotle's metaphysical biology. It is rooted in the forms of social life to which the theorists of the classical tradition give expression. For according to that tradition to be a man is to fill a set of roles each of which has its own point and purpose: member of a family, citizen, soldier, philosopher, servant of God. It is only when man is thought of as an individual prior to and apart from all roles that 'man' ceases to be a functional concept.

#### **That necessitates a virtue paradigm since it’s the only account of ethics that develops the individual. 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 ]//Scopa. 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.

#### Thus, the standard is consistency with fostering virtue.

#### Prefer additionally –

#### 1. All ethics collapse to virtue – a) Motivation – to follow a moral theory is to commit yourself to an attempting to become a better person through fostering virtue b) Performativity – the practice of engaging in philosophy is the practice of fostering virtue through teachings of morality, proves the construct of LD at seeking the proper way to act and philosophy in general concede its authority c) Solves oppression since fostering good moral character prevents acts of psychological and material violence and removes the ideology of hate from the spirit d) Solipsism – even if only one subject exists, only 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.

#### **2.** Actor spec – the role of the state is to foster virtue. Teaches good governance that prevents arbitrary applications of laws—nonarbitrariness is a side constraint since only a non-arbitrary principle can hold agents morally accountable since otherwise we can’t know what our obligations are

Smith 12, [George H. Smith FEB 28, 2012 The Roots of State Education Part 3: Aristotle and Civic Virtue formerly Senior Research Fellow for the Institute for Humane Studies, a lecturer on American History for Cato Summer Seminars, and Executive Editor of Knowledge Products. Smith's fourth book, The System of Liberty, was recently published by Cambridge University Press]//Scopa Aristotle explicitly repudiated the notion of limited government that was defended by some of his contemporaries. He quoted the sophist Lycophron as saying that a government exists “for the sake of alliance and security from injustice” and that laws should serve as “a surety to one another of justice.” Aristotle disagreed. Rather than confine itself to this negative function — the enforcement of justice — **the state should actively promote the good life**. **In order to promote the good life and maintain social order, the state should inculcate civic virtue. Those “who care for good government take into consideration virtue and vice in states. Whence it may be further inferred that virtue must be the care of the state which is truly so called.”** This concern with civic virtue was the basis for Aristotle’s plan of a comprehensive system of state education, one explicitly based on the Spartan model. Like Plato, Aristotle did not distinguish between the voluntary sphere of society and the coercive sphere of the state (or city-state, in their case). Consequently, individual freedom was not important enough for Aristotle even to consider when recommending laws. As a philosopher who believed he knew what is needed for a good society, Aristotle argued that laws should be concerned with producing “the healthiest possible bodies in the nurseries of the state.” The age of marriage for women should be around eighteen; for men, thirty-seven. Marriages should take place during winter, and married couples must “render service to the state by bringing children into the world.” Pregnant women should engage in moderate exercise by being required to make daily pilgrimages to a religious shrine. According to Aristotle, “There should certainly be a law to prevent the rearing of deformed children,” but infanticide should be against the law when used merely as a method of population control. Instead, laws should limit the size of the family. When this limit is exceeded the pregnant woman should be compelled to abort by inducing a miscarriage (provided “sense and life” have not yet begun in the embryo). The physical health of children should be closely supervised. They should be habituated from an early age to endure cold weather; this will further their health and harden them “in advance for military service.” Superintendents of education should determine appropriate stories and games, which should be neither laborious nor effeminate. In short, “The superintendents of education must exercise a general control over the way in which children pass their time.” The legislator must also prohibit corrupting influences. The use of bad language should be proscribed “everywhere in our state,” and those who speak or act indecently “must be punished accordingly.” (Younger violators should be subjected to physical punishment, whereas older violators should “undergo indignities of a degrading character.”) And by the same logic, indecent pictures, paintings, statues, and plays should also be prohibited. The list goes on and on. So far there seems to be no essential difference between the fundamental approaches of Plato and Aristotle, but Aristotle made a distinction that Plato had not. Aristotle, unlike Plato, drew a distinction between a good man and a good citizen, and this distinction would have a profound influence on later philosophy. According to Aristotle, our common nature as human beings generates a concept of the good man that applies to everyone, so Aristotle agreed with Plato that in an ideal state there would be no difference between the good man and the good citizen. But Aristotle goes on to say that in states as we actually find them, the civic virtues of a good citizen vary according to the nature of the state in question. The upshot of Aristotle’s argument is that one can be a good citizen while lacking some of the moral qualities of a good man. Civic virtue covers a good deal of ground for Aristotle, but in his distinction between the good man and the good citizen there exists the potential argument that state education should be restricted to teaching the civic virtues essential to citizenship, thereby leaving a broad area of moral autonomy to the individual — a sphere in which the state should not intervene. Here we need to jump ahead to the thirteenth century and the writings of Thomas Aquinas, who was principally responsible for integrating many of Aristotle’s ideas into Christian political philosophy. Following Aristotle, Aquinas distinguished the good citizen from the good man; one can possess the virtues necessary for citizenship (e.g., one can abstain from theft) while being morally deficient in other respects. Although Aristotle was the source of this doctrine, Aquinas drew conclusions from it that Aristotle had not. According to Aquinas, the purpose of human laws is to “uphold the common good of justice and peace.” Coercive laws are necessary to regulate external behavior, but they cannot create virtuous men, because (as he wrote in Summa Contra Gentiles) “the main thing in virtue is choice, which cannot be present without voluntariness to which violence is opposed.” In contrast to an earlier strain in Christian thought, according to which the repression and punishment of sin are fundamental purposes of government, Aquinas distinguished between two categories of vice, namely, those vices that violate the principles of justice and those personal vices that do not. As Aquinas wrote in his Summa Theologica: [H]uman law is framed for a number of human beings, the majority of whom are not perfect in virtue. Therefore human laws do not forbid all vices, from which the virtuous abstain, but only the more grievous vices, from which it is possible for the majority to abstain, and chiefly those that are to the hurt of others, without the prohibition of which human society could not be maintained; thus human law prohibits murder, theft and the like. I do not wish to suggest that Aquinas was a libertarian – far from it – but in contending that individuals have a moral “sphere of action which is distinct from that of the whole,” and in contending that actions in this sphere should be left to voluntary choice, even though vice might be the result (he went so far as to defend legalized prostitution), Aquinas established a conceptual framework that would later play a major role in the libertarian distinction between vices and crimes. For Aquinas, as one commentator has noted, human laws “did not make men good but rather established the outward conditions in which a good life can be lived.” This was a significant departure from the teachings of Plato and Aristotle, neither of whom left room for a sphere of personal autonomy that should be exempt from the power of the state. In earlier essays I discussed the Spartan model of education, its influence on Plato and Aristotle, and Plato’s objections to free market education. In this essay I have outlined Aristotle’s views on education and explained how his distinction between a good man and a good citizen was modified by Aquinas. Tracking the influence of ideas over many centuries is always a tricky enterprise, especially in the limited space available to me in this format, but we can now proceed to examine some typical examples of how the models I outlined were used by later advocates of state education. The Spartan model was frequently invoked during the eighteenth century by those philosophers who believed that the fundamental purpose of education should be to “form valuable citizens to the state” (as Baron d’Holbach, a patron of the French philosophes, put it). With the rise of nationalism children were seen as future citizens and patriots whose education must be carefully supervised to insure proper results. “Thus,” wrote Charles Duclos in 1750, “it is patent that in Spartan education, the first task was to form Spartans. In the same way, **the sentiments of citizenship must be inculcated in every state**; among us, Frenchmen must be formed, and in order to create Frenchmen, we must first work to form men.” Montesquieu, in his immensely influential Spirit of the Laws (1748), set the stage for a good deal of Enlightenment thinking about children, the state, and education. **If a democratic republic is to survive, it must imbue its citizens with civic virtue – “a love of the laws and of our country,” a love that elevates the public interest above private interests**. Montesquieu praised Spartan education for its ability to produce virtuous citizens, and he left no doubt that this should be the central task of education in a republic: “**Everything therefore depends on establishing this love in a republic; and to inspire it ought to be the principal business of education**.” Another formative influence on Enlightenment thinking was J.J. Rousseau, another fan of the Spartan model. In his essay on Political Economy (1758), Rousseau echoed Plato’s objections to free market education. The state should not “abandon to the intelligence and prejudices of fathers the education of their children, as that education is of still greater importance to the State than to the fathers.” **Public education is needed to insure that citizens “will do nothing contrary to the will of society.”** Children should be taught “to regard their individuality in its relation to the body of the State, and to be aware, so to speak, of their own existence merely as part of that of the State….”

#### **Impact calc: 1. My framework doesn’t care about consequences nor intents, just the procedural question and the empirical states it produces to foster virtue** 2. Kant doesn’t negate – a) anything else would require an external standard of evaluation, but that would require a further standard, which is infinitely regress and b) the index of my reason is distinct from the ethical realm of an alternative reason, so I still have a sufficient one to act **3. Reject impact 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, that’s the Lanza evidence and anything else collapses to skepticism since we can’t trust our own judgements about morality. 4. Aretaic first— A] Motivation- deontic theories are always external rules that kill motivation since people won’t always care to follow it— aretaic solves since people naturally desire to be the best version of them B] fostering good moral character creates better agents that will actually care about their ethic in the first place, so the aff is a prereq C] Deontic oversimplifies actions down to right and wrong, but aretaic expresses degrees like admirable making weighing possible**

### Offense

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

#### 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.

#### [2] Your turns don’t negate— a) They assume the state has an obligation to be virtuous but its role is merely to cultivate virtue b) 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 c) Creationism – Property rights are based on the notion of an individual mixing a unique aspect of themselves with a physical property that justifies a deserving of ownership, but intellectual property is not created by individuals, but rather, is discovered. That means we’d be providing arbitrary ownership of an idea to an agent that didn’t create it.

#### **[3] More turns— 1) IP necessitates freerididing off of past scientific discoveries 2) Uses people’s suffering as a means to an end of profit 3) IP prevents the sovereign from accessing property, weakening them 4)** IP regimes are tied to rising biodiversity loss.

**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.

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> [↑](#footnote-ref-1)
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* [↑](#footnote-ref-2)