## T States

#### Interp and violation: "The member nations" denotes the totality of member nations in the WTO. The aff may not defend a subset of WTO member nations ought to reduce IP protections for medicines.

Sharvy 80 [Richard Sharvy, philosopher. "A More General Theory of Definite Descriptions on JSTOR," The Philosophical Review, Vol. 89, No. 4, Oct. 1980, accessed 8-22-2021, https://www.jstor.org/stable/2184738] HWIC

3. Definite Plural Descriptions. Phrases like 'the sheep in New Zealand' and 'the people in Auckland' are also ordinary and common definite descriptions, and they do denote. But because their contained predicates are plural predicates like 'are people in Auckland', which apply to more than one object, such expressions are not subject to a Russellian analysis. There is no such thing as (ax \* x are people in Auckland), since a number of distinct items satisfy the predicate-the men in Auckland are people in Auckland, and so are the women in Auckland and the children in Auckland. The definite plural description 'the people in Auckland' designates the sum or totality of all the people in Auckland. This is the sum of all that to which the predicate 'are people in Auckland' applies: the sum of all the items such as the women in Auckland, the children in Auckland, etc., that satisfy the plural predicate 'are people in Auckland'. What sort of entity is the denotation of a definite plural description such as 'the children in Auckland'? A first attempt might be to say that such expressions denote sets or classes. Then a sum of such items would be the union of such classes. Russell would insist on calling the people in Auckland a "class as many" (1903, pp. 68-72, 76-77). But if the predicate 'are people in Auckland' is taken to apply to x just if x is a set of people in Auckland,5 then the definite plural description 'the people in Auckland' refers to the union of these sets: U {x: x is a set of people in Auckland). So let us first consider set-theoretic union as a candidate for the sort of sum needed here in the analysis of definite plural descriptions. This might seem more complicated than '{x: x is a person in Auckland)', which refers to the same class. But the former expression has the advantage of preserving the predicate as a plural predicate, as it appeared in the original definite plural description. A standard definition of union is U a = {x: (ay) (x ecy .y E a)) (cf. Quine 1963, p. 53). In my notation this would be written: Ua = {x:xe(Qy yEa)) -the x's that are a member of some member of a. Quine observes 5I do not say 'nonempty' simply because it would be redundant: no class of people is empty. I do include the singletons, so that {Sharvy} are people in Auckland. This might seem odd. However, the instances or instantiations of 'all men are mortal' include sentences like 'Sharvy is mortal' along with sentences like 'the men in Auckland are mortal'; thus, the plural does include the singular. Notice that 'all men are mortal' should be symbolized '(x) (x are men D x are mortal)'; logic students are generally wrongly taught to write '(x) (x is a man D x is mortal)', which is more properly a symbolization of 'every man is mortal', which has the singular subject 'every man'. 616 This content downloaded from 92.63.104.30 on Sat, 28 Jun 2014 13:35:30 PM All use subject to JSTOR Terms and Conditions DEFINITE DESCRIPTIONS that if everything is a class, this definition implies that the union U {x} of a singleton is its member x; this effect is preserved for an apparent nonclass by identifying it with its own unit class. So with this convention, if G applies to exactly one object, then U {x: Gx} = ( 7x . Gx ). So the Russellian definite singular description again emerges, here as a species of definite plural description.6 This would occur with, e.g., 'the men in this room' if there were exactly one man in the room. Notice also that plural predicates, like mass predicates, are cumulative: any sum of parts which are cats are cats. So 'G(the G)' holds for any instantiated plural predicate when 'the G' is defined as such a sum: the men in Auckland are men in Auckland, the poor are poor, etc. The analysis of definite plural description as union is not entirely satisfactory. One reason is that it explicitly uses the mechanism of class abstraction and the membership relation in a way that requires that such definite plural descriptions do denote classes. Now there is no problem about what 'the people in Auckland' denotes: it denotes the people in Auckland. Whether the people in Auckland are a set or class is an ontological question that should be discussed elsewhere. (Indeed, ontological questions generally should be independent of a theory of descriptions: we should be able to explain phrases like 'the first symphony of Beethoven' without discussing the ontological nature of symphonies.) My aim here is simply to explain plural definite descriptions like 'the people in Auckland' in a way that remains neutral on that ontological question by avoiding explicitly settheoretic notions. Another reason to turn away from the above analysis of 'the C as 'U {x: Gx}' is that it lacks generality. It lets in too much 6 I thank W. V. Quine for calling my attention to this passage. 'one object' means 'one class'. Consider the predicate 'are men and women in this room', and suppose the room contains just one man, m, and one woman, w. Then only one object, {m,w} satisfies that predicate, and U {a: a are men and women in this room) = U {{m,w}} = {m,w} = (7a a are men and women in this room). See note 8 also. Consider the definite description 'the square root of 2'. This is ordinarily used to refer to the positive square root of 2. My theory explains this; if real numbers are defined in the usual way as lower cuts of rationals (cf. Russell 1903, ch. 33), the positive root is the union of the negative and positive roots. 617 This content downloaded from 92.63.104.30 on Sat, 28 Jun 2014 13:35:30 PM All use subject to JSTOR Terms and Conditions RICHARD SHARVY when applied to a singular definite description whose contained predicate applies to more than one object: 'the author of PM' would denote {Whitehead, Russell). This was Frege's convention (?1 1), but it is clearly artificial; 'the author of PM' should fail to denote. And finally, 'U {x: Gx)' just doesn't look enough like the analysis given earlier of definite mass descriptions. Mass terms and plural terms are alike in numerous ways, and it would be nice if their uses in forming definite descriptions had analyses that reflected this similarity. Specifically, we should express summation without using the membership relation e, which has no analogue in the semantics of mass terms. The solution is to observe that there is a part of relation available: the men in Auckland are part of the people in Auckland. (This relation looks very much like the relation of being a nonempty subset of.) Writing it as '<', we may then define 'the G' for plural predicates as (4) above: sm G that all G are part of. The requirement in (4) that x satisfy G is useful for distinguishing the definite plural description 'the authors of PM' from the definite singular description 'the author of PM'. The former denotes Whitehead and Russell, as it should.7 Without the requirementhat x satisfy G, using (1) or simply union, so would the latter. But although Whitehead and Russell are authors of PM, they are not an author of PM. That requirement also leads to the intuitively correct results for expressions like 'the Wilmington Ten' and 'the five men in this room'. If there are only four men in this toom, the description 'the five men in this room' fails to denote because the predicate 'are five men in this room' applies to nothing. If there are six men in this room, then that description also fails to denote-not because that predicate applies to more than one item (i.e., to every part of the six containing just five men), but because it fails to apply to their sum. A word of caution about part is needed here. I am taking it in what I think is its plain and ordinary sense. However, Goodman, Quine, and other writers on the theory of parts (mereology) have used it in an extended sense which is not appropriate here. 7 But it does not denote Whitehead, and it does not denote Russell. The property of being denoted by an expression is not dissective. I may refer to something without referring to each of its parts. 618 This content downloaded from 92.63.104.30 on Sat, 28 Jun 2014 13:35:30 PM All use subject to JSTOR Terms and Conditions DEFINITE DESCRIPTIONS The difference is that these writers combine mereology with a kind of materialism. (An exception is Foradori.) Thus Quine writes, "there are parts of water, sugar, and furniture too small to count as water, sugar, furniture" (1960, p. 99). Here, by 'parts of furniture' he means something like 'spatiotemporally determined parts of the material constituting the world's furniture'; by 'parts of water' he means 'spatiotemporally determined parts of the world's water'. However, in the ordinary sense of 'part', the parts of water are hydrogen and oxygen. In the ordinary sense of part, shrimp is a part of shrimp salad. Here, the words 'shrimp' and 'shrimp salad' refer to types or kinds, and not to the world's shrimp and the world's shrimp salad. Indeed, the world's shrimp is not part of the world's shrimp salad. Now, my furniture is part of the world's furniture, and the chair in my billiard room is part of my furniture. But is a leg of that chair part of my furniture? I doubt it. In a distinguishable sense of 'part', a leg of my chair is a part of that chair and a part of my furniture. In the plural of that same sense, the legs are parts of my furniture. But those legs are not part of my furniture. The matter of the legs is part of the matter of the furniture; also, the chairs in my billiard room are part of my furniture. But the legs of the chairs are not part of the furniture. The men in Auckland are part of the men and women in Auckland, but the arms of the men in Auckland are not part of the men and women in Auckland. The explanation is not that the arms fail to satisfy the contained predicate 'are men and women in Auckland', for the men in Auckland also fail to be men and women in Auckland. Rather, the explanation is that x are part of y in this ordinary sense just if x are some ofy. Notice the difference between 'some' and 'some of. It's true that some of the men and women in Auckland are men, but false that some men and women in Auckland are men. It's true that some of the whiskey-and-water inmy glass is water, but false that some whiskey-and-water inmy glass is water. 'part of' and 'some of' seem to be synonymous here; examples like these occur with mass and plural predicates that are not dissective. The legs of my chair are not part of my furniture, because 619 This content downloaded from 92.63.104.30 on Sat, 28 Jun 2014 13:35:30 PM All use subject to JSTOR Terms and Conditions RICHARD SHARVY it's false that they are some of my furniture. Given our understanding of 'part' then, being furniture and being men in Auckland are dissective properties; it is compounds like 'are men and women' that fail to be dissective. So only articles of furniture count as part of my furniture. It is a totally distinct feature of Goodman's system that causes his notion of 'part' to be broader than mine, so that, e.g., the chair legs are also part of my furniture. That feature is a sort of materialism. The set of my tables # the set of my table tops and legs; but the matter of my tables = the matter of my tops and legs. If we remove this materialism from mereology, we have a purer theory of part and whole, and consequently of sum. The mereological sum, then, of my articles of furniture is my furniture, and not the matter of my furniture. With this ordinary and intended sense of 'part', then, the expressions 'the counties of Utah' and 'the townships of Utah' will have distinct denotations, as they should. Without the distinction made above, they might appear to collapse into the same object, since the territory occupied by the counties is identical to that occupied by the townships; (px) (x is territory of (b.y) (y are counties, etc.) ) = etc. What sort of entity is denoted by the definite plural description 'the men in Auckland'? This question contains the mistaken implication that this phrase denotes a single entity. But the phrase 'the men in Auckland' obviously denotes the men in Auckland. One might ask, "What sort of entities are those?" But the answer is easy: they are entities that eat, drink, sleep, and are numerous. The error to avoid is an insistence on the singular. 'the men in Auckland' is not a singular term-it is a plural term. This should hardly need to be said. But some writers have gone astray by failing to see that plurals are plural, and so insisting that they must denote something singular. For example, Richard E. Grandy says that in the sentence 'Lions are widespread', " 'lions' must be a singular [sic] term denoting the class of lions" (p. 297). Given this, it will follow that a certain class is widespread (which does not seem as odd to me as it might to many). But what seems odd is that Grandy claims that it does not follow from his statement that any class is widespread; apparently 620 This content downloaded from 92.63.104.30 on Sat, 28 Jun 2014 13:35:30 PM All use subject to JSTOR Terms and Conditions DEFINITE DESCRIPTIONS he prefers to give up the indiscernibility of identicals rather than the dogma that classes are "abstract." Now the words 'set' and 'class' have uses as dummy nominal measure words whose only function is the syntactic one of turning a plural into an apparent singular: the rational numbers are countable -- the set of rational numbers is countable. But no semantic consequences follow from such a use of the words 'set' and 'class'. The rational numbers are the set of rational numbers; the set of rational numbers is the rational numbers. The people in this room weigh 1000 kilograms; the set of people in this room weighs 1000 kg. The men in this room are not abstract; the set of men in this room is not abstract. We can avoid Grandy's contortions simply by taking the plural seriously as a plural, and abandoning the fetish for the singular that pervades contemporary decadent Western ontology. Along these same lines we can affirm that (i) 'the world's lions are widespread' and (ii) 'the world's lions are mammalian' do have the same logical form. In particular, the form of (ii) is 'Ml' and not '(x)(Lx D Mx)'; this is clear for (i). Question: how, then, does (ii), along with 'Aslan is a lion' imply 'Aslan is mammalian'? Answer: the implication is not a formal one at all, but depends on the fact that 'are mammalian' is dissective; 'are widespread' is not dissective. This situation is quite familiar: 'Ben weighs less than 60 kg' and 'Ben's nose is part of Ben' imply 'Ben's nose weighs less than 60 kg'. But again, the implication is not formal-it is not due to the logical form of these statements (this is easily seen by putting 'more' for 'less'). Rather, the implication holds because 'weighs less than 60 kg' is dissective. 4. Conclusion. For any given predicate G there is an appropriate part of or some of relation ? on the extension of G.8 Notice that 8The structure <{x: Gx},?) is often a mereology, i.e., a model of the so-called calculus of individuals. But it may fail to be a mereology. Idefine a quasi-mereology to be any structure (S, ?) where ? partially orders S (reflexive, transitive, antisymmetric), and where the <-least upper bound of a is a member of S for every nonempty subset a of S. One interesting type of quasi-mereology results from taking the algebraic direct product of two 621 This content downloaded from 92.63.104.30 on Sat, 28 Jun 2014 13:35:30 PM All use subject to JSTOR Terms and Conditions RICHARD SHARVY for most singular count predicates, < is just the identity relation: for 'is a shoe I own' < is the identity relation, for the extension of that predicate contains no two objects of which either is part of the other. Regardless of how many shoes I own, x - y only if x = y, for every x and y in that domain. In all such cases, '( px Gx )' defined as (4) comes out as desired, designating the gold in Zurich or the men in Auckland; and if I own just one shoe, '( pxS x is a shoe I own)' designates it, but otherwise that description fails. The analysis of 'the G' as (4) is therefore a general theory of definite descriptions, of which definite mass descriptions, definite plural descriptions, and Russellian definite singular count descriptions are species.9 full mereologies. (This description of the situation is due to Mark Nixon.) For example, (M, ) X <W. 5), where M is the set of sets of men and W is the set of sets of women, is isomorphic to (MW, 5), where MW is the set of sets of men and women, i.e., of sets containing at least one man and one woman. (MW, C ) is simply the corresponding quasi-mereology of the predicate 'are men and women'; this predicate is satisfied by the people in Auckland (they are men and women), but not by the men in Auckland. The structure fails to be a mereology because it is not properly closed under subtraction: there are sets a, b, each of which are men and women, and where a - b is not null yet fails to be men and women; a - b might just be men. However, we can combine the mereologies (M, C) and <W, 5) so that a mereology results. Add the null element to each, take the direct product, and then remove the null element: ((M U {4}, 5) X (W U {4}, 5))- ((4,4), 5). This is isomorphic to the mereology corresponding to the predicate 'are adults', i.e., to the set of nonempty subsets of the set of all men and women, under subset: V(P(U (M U W)) - {4}, C). 9 We have an account of the generic 'the' along these same lines. The New Zealand Flag is a New Zealand flag to which every New Zealand flag bears a certain relation ?. This seems a little more natural if we add the syllables 'akes' or 'icipates' to the word 'part' in reading '<' here: the New Zealand Flag is that New Zealand flag in which every New Zealand flag participates. The fact that it participates in itself does not lead to a "third man" regress, because participation in, as a variant of the part of relation, is not used to explain predication; predication remains primary. Of course, nothing in my discussion requires that there be such an entity (nor does anything here count against it). My theory is quite neutral. If there is such an entity, '( px x is a New Zealand flag)' picks it out. If there is no such entity, but merely a number of flags none of which bears ? to anything but itself, then ? is coextensive with the identity relation on those flags, and the situation is the same as for 'my shoe'. John Bacon, however, claims 622 This content downloaded from 92.63.104.30 on Sat, 28 Jun 2014 13:35:30 PM All use subject to JSTOR Terms and Conditions DEFINITE DESCRIPTIONS With this analysis and some thought about examples of definite mass descriptions and definite plural descriptions, we see that the primary use of 'the' is not to indicate uniqueness. Rather, it is to indicate totality; implication of uniqueness is a side effect.

#### Semantic tests determine whether statements are generic or existential –

**Leslie and Lerner 16** [Sarah-Jane Leslie (Ph.D., Princeton, 2007) is the dean of the Graduate School and Class of 1943 Professor of Philosophy. She has previously served as the vice dean for faculty development in the Office of the Dean of the Faculty, director of the Program in Linguistics, and founding director of the Program in Cognitive Science at Princeton University. She is also affiliated faculty in the Department of Psychology, the University Center for Human Values, the Program in Gender and Sexuality Studies, and the Kahneman-Treisman Center for Behavioral Science and Public Policy], and Adam Lerner, Ph.D, Postgraduate Research Associate in the Department of Philosophy at Princeton University, 4-24-2016, accessed 9-4-2021, "Generic Generalizations (Stanford Encyclopedia of Philosophy)," <https://plato.stanford.edu/entries/generics/>] HWIC

There are some tests that are helpful in distinguishing these two readings. For example, the existential interpretation is upward entailing, meaning that the statement will always remain true if we replace the subject term with a more inclusive term. Consider our examples above. In ([1b](https://plato.stanford.edu/entries/generics/#ex1b)), we can replace “tiger” with “animal” salva veritate, but in ([1a](https://plato.stanford.edu/entries/generics/#ex1a)) we cannot. If “tigers are on the lawn” is true, then “animals are on the lawn” must be true. However, “tigers are striped” is true, yet “animals are striped” is false. ([1a](https://plato.stanford.edu/entries/generics/#ex1a)) does not entail that animals are striped, but ([1b](https://plato.stanford.edu/entries/generics/#ex1b)) entails that animals are on the front lawn (Lawler 1973; Laca 1990; Krifka et al. 1995).

Another test concerns whether we can insert an adverb of quantification with minimal change of meaning (Krifka et al. 1995). For example, inserting “usually” in the sentences in ([1a](https://plato.stanford.edu/entries/generics/#ex1a)) (e.g., “tigers are usually striped”) produces only a small change in meaning, while inserting “usually” in ([1b](https://plato.stanford.edu/entries/generics/#ex1b)) dramatically alters the meaning of the sentence (e.g., “tigers are usually on the front lawn”). (For generics such as “mosquitoes carry malaria”, the adverb “sometimes” is perhaps better used than “usually” to mark off the generic reading.)

#### The resolution is generic: 1] "nations ought to reduce IPP for medicines" doesn't imply political bodies ought to b/c there might not be an obligation for terrorist groups or the UN 2] "nations generally ought to reduce IPP for medicines" doesn't substantially change the meaning

**1] Semantics outweigh: It’s the only stasis point we know before the round so it controls the internal link to engagement, and there’s no way to use ground if debaters aren’t prepared to defend it.**

**2] Limits: there are over 22k affs accounting for combinations of countries, exploded by "reduce" not implying complete elimination and "medicines" allowing specification – unlimited topics incentivize obscure affs that negs won’t have prep on – limits are key to reciprocal prep burden**

**D] Paradigm Issues –**

**1] T is DTD – A] their abusive advocacy skewed the debate from the start B] DTA is incoherent because we indict their advocacy**

**2] Comes before 1AR theory -- A] If we had to be abusive it’s because it was impossible to engage their aff B] T outweighs on scope because their abuse affected every speech that came after the 1AC C] Topic norms outweigh on urgency – we only have a few months to set them**

**3] Use competing interps on T – A] topicality is a yes/no question, you can’t be reasonably topical B] only our interp sets norms -- reasonability is arbitrary and invites judge intervention C] reasonability causes a race to the bottom of questionable argumentation**

## T Suspend

#### Interpretation: Reduce means permanent reduction – it’s distinct from “suspend”

**Reynolds 59** – Judge (In the Matter of Doris A. Montesani, Petitioner, v. Arthur Levitt, as Comptroller of the State of New York, et al., Respondents [NO NUMBER IN ORIGINAL] Supreme Court of New York, Appellate Division, Third Department 9 A.D.2d 51; 189 N.Y.S.2d 695; 1959 N.Y. App. Div. LEXIS 7391 August 13, 1959, lexis)

Section 83's counterpart with regard to nondisability pensioners, section 84, prescribes a reduction only if the pensioner should again take a public job. The disability pensioner is penalized if he takes any type of employment. The reason for the difference, of course, is that in one case the only reason pension benefits are available is because the pensioner is considered incapable of gainful employment, while in the other he has fully completed his "tour" and is considered as having earned his reward with almost no strings attached. It would be manifestly unfair to the ordinary retiree to accord the disability retiree the benefits of the System to which they both belong when the latter is otherwise capable of earning a living and had not fulfilled his service obligation. If it were to be held that withholdings under section 83 were payable whenever the pensioner died or stopped his other employment the whole purpose of the provision would be defeated, i.e., the System might just as well have continued payments during the other employment since it must later pay it anyway.  [\*\*\*13]  The section says "reduced", does not say that monthly payments shall be temporarily suspended; it says that the pension itself shall be reduced. The plain dictionary meaning of the word is to diminish, lower or degrade. The word "reduce" seems adequately to indicate permanency.

#### Violation: They defend a temporary reduction

#### Vote neg for limits and ground – they cause a race to the bottom of unpredictable affs that reduce IP protections for a short period of time and don’t link to neg disads.

## Innovation DA

**Pharma profits are up from COVID vaccines in particular, patent waivers threaten this**

**Buchholz 5-17-21**

(Katharina, https://www.statista.com/chart/24829/net-income-profit-pharma-companies/)

The profitability of coronavirus vaccines has been in the spotlight since U.S. President Joe Biden come out in support of temporarily lifting vaccine patents to make the production of the life-saving inoculations more financially feasible for poorer countries. EU leaders meanwhile remain divided over such a move. Company financial reports show that COVID-19 vaccine makers and developers like Johnson & Johnson, Pfizer, Moderna, AstraZeneca and BioNTech have seen their profits increase since the vaccine rollout, at times majorly. In early May, stocks of several companies that benefit from COVID-19 vaccine sales **took a nosedive on the news of Biden’s reversal**. Moderna stocks, for example, were still down more than 6 percent at close on May 5, the day of the announcement. Stocks recovered somewhat as German chancellor Angela Merkel came out against patent waivers the following day. While fluctuations in the stock market price have hurt drug makers in the **short term**, patent waivers would diminish the bottom line of companies involved with the development and production of COVID-19 **vaccines in the long term**. Pharma giants like Johnson & Johnson and Pfizer bring in billions of dollars of income every quarter from diverse sources, so the COVID bump was smaller for them. In the case of Pfizer, which has been a bigger producer than J&J, the year-over-year profit increase was a handsome 44 percent, however. For smaller AstraZeneca, the COVID year meant that its profits doubled. In the case of Moderna, the past year has turned a Q1 loss into a profit. The case is similar for German company BioNTech, which collaborated with Pfizer on its COVID vaccine. While Q1 2021 brought in a profit of $1.1 billion, the company ran a deficit since its founding in 2008 up until Q4 2020, when it posted a profit for the first time. The $446 million earned stood in contrast to losses of almost $428 million accrued in the first nine months of the year.

**Strong IP protection spurs innovation by encouraging risk-taking and incentivizing knowledge sharing -- prefer statistical analysis of multiple studies**

**Ezell and Cory 19** [Stephen Ezell, vice president & global innovation policy @ ITIF, BS Georgetown School of Foreign Service. Nigel Cory, associate director covering trade policy @ ITIF, MA public policy @ Georgetown. "The Way Forward for Intellectual Property Internationally," Information Technology & Innovation Foundation, 4-25-2019, accessed 8-25-2021, https://itif.org/publications/2019/04/25/way-forward-intellectual-property-internationally] HWIC

IPRs Strengthen Innovation

Intellectual property rights power innovation. For instance, analyzing the level of intellectual property protections (via the World Economic Forum’s Global Competitiveness reports) and creative outputs (via the Global Innovation Index) shows that counties with stronger IP protection have more creative outputs (in terms of intangible assets and creative goods and services in a nation’s media, printing and publishing, and entertainment industries, including online), even at varying levels of development.46

IPR reforms also introduce strong incentives for domestic innovation. Sherwood, using case studies from 18 developing countries, concluded that poor provision of intellectual property rights deters local innovation and risk-taking.47 In contrast, IPR reform has been associated with increased innovative activity, as measured by domestic patent filings, albeit with some variation across countries and sectors.48 For example, Ryan, in a study of biomedical innovations and patent reform in Brazil, found that patents provided incentives for innovation investments and facilitated the functioning of technology markets.49 Park and Lippoldt also observed that the provision of adequate protection for IPRs can help to stimulate local innovation, in some cases building on the transfer of technologies that provide inputs and spillovers.50 In other words, local innovators are introduced to technologies first through the technology transfer that takes place in an environment wherein protection of IPRs is assured; then, they may build on those ideas to create an evolved product or develop alternate approaches (i.e., to innovate). Related research finds that trade in technology—through channels including imports, foreign direct investment, and technology licensing—improves the quality of developing-country innovation by increasing the pool of ideas and efficiency of innovation by encouraging the division of innovative labor and specialization.51 However, Maskus notes that without protection from potential abuse of their newly developed technologies, foreign enterprises may be less willing to reveal technical information associated with their innovations.52 The protection of patents and trade secrets provides necessary legal assurances for firms wishing to reveal proprietary characteristics of technologies to subsidiaries and licensees via contracts. Counties with stronger IP protection have more creative outputs (in terms of intangible assets and creative goods and services in a nation’s media, printing and publishing, and entertainment industries, including online), even at varying levels of development. The relationship between IPR rights and innovation can also be seen in studies of how the introduction of stronger IPR laws, with regard to patents, copyrights, and trademarks, affect R&D activity in an economy. Studies by Varsakelis and by Kanwar and Evenson found that R&D to GDP ratios are positively related to the strength of patent rights, and are conditional on other factors.53 Cavazos Cepeda et al. found a positive influence of IPRs on the level of R&D in an economy, with each 1 percent increase in the level of protection of IPRs in an economy (as measured by improvements to a country’s score in the Patent Rights Index) equating to, on average, a 0.7 percent increase in the domestic level of R&D.54 Likewise, a 1 percent increase in copyright protection was associated with a 3.3 percent increase in domestic R&D. Similarly, when trademark protection increased by 1 percent, there was an associated R&D increase of 1.4 percent. As the authors concluded, “Increases in the protection of the IPRs carried economic benefits in the form of higher inflows of FDI, and increases in the levels of both domestically conducted R&D and service imports as measured by licensing fees.”55 As Jackson summarized, regarding the relationship between IPR reform and both innovation and R&D, and FDI, “In addition to spurring domestic innovation, strong intellectual property rights can increase incentives for foreign direct investment which in turn also leads to economic growth.”56

**Biopharmaceutical innovation is key to prevent future pandemics and bioterror**

**Marjanovic and Feijao 20** [Sonja Marjanovic Ph.D., Judge Business School, University of Cambridge. Carolina Feijao, Ph.D. in biochemistry, University of Cambridge; M.Sc. in quantitative biology, Imperial College London; B.Sc. in biology, University of Lisbon. "How to Best Enable Pharma Innovation Beyond the COVID-19 Crisis," RAND Corporation, 05-2020, accessed 8-8-2021, https://www.rand.org/pubs/perspectives/PEA407-1.html] HWIC

As key actors in the healthcare innovation landscape, pharmaceutical and life sciences companies have been called on to develop medicines, vaccines and diagnostics for pressing public health challenges. The COVID-19 crisis is one such challenge, but there are many others. For example, MERS, SARS, Ebola, Zika and avian and swine flu are also infectious diseases that represent public health threats. Infectious agents such as anthrax, smallpox and tularemia could present threats in a bioterrorism context.1 The general threat to public health that is posed by antimicrobial resistance is also well-recognised as an area in need of pharmaceutical innovation. Innovating in response to these challenges does not always align well with pharmaceutical industry commercial models, shareholder expectations and competition within the industry. However, the expertise, networks and infrastructure that industry has within its reach, as well as public expectations and the moral imperative, make pharmaceutical companies and the wider life sciences sector an indispensable partner in the search for solutions that save lives. This perspective argues for the need to establish more sustainable and scalable ways of incentivising pharmaceutical innovation in response to infectious disease threats to public health. It considers both past and current examples of efforts to mobilise pharmaceutical innovation in high commercial risk areas, including in the context of current efforts to respond to the COVID-19 pandemic. In global pandemic crises like COVID-19, the urgency and scale of the crisis – as well as the spotlight placed on pharmaceutical companies – mean that contributing to the search for effective medicines, vaccines or diagnostics is essential for socially responsible companies in the sector. 2 It is therefore unsurprising that we are seeing industry-wide efforts unfold at unprecedented scale and pace. Whereas there is always scope for more activity, industry is currently contributing in a variety of ways. Examples include pharmaceutical companies donating existing compounds to assess their utility in the fight against COVID19; screening existing compound libraries in-house or with partners to see if they can be repurposed; accelerating trials for potentially effective medicine or vaccine candidates; and in some cases rapidly accelerating in-house research and development to discover new treatments or vaccine agents and develop diagnostics tests.3,4 Pharmaceutical companies are collaborating with each other in some of these efforts and participating in global R&D partnerships (such as the Innovative Medicines Initiative effort to accelerate the development of potential therapies for COVID-19) and supporting national efforts to expand diagnosis and testing capacity and ensure affordable and ready access to potential solutions.3,5,6 The primary purpose of such innovation is to benefit patients and wider population health. Although there are also reputational benefits from involvement that can be realised across the industry, there are likely to be relatively few companies that are ‘commercial’ winners. Those who might gain substantial revenues will be under pressure not to be seen as profiting from the pandemic. In the United Kingdom for example, GSK has stated that it does not expect to profit from its COVID-19 related activities and that any gains will be invested in supporting research and long-term pandemic preparedness, as well as in developing products that would be affordable in the world’s poorest countries.7 Similarly, in the United States AbbVie has waived intellectual property rights for an existing combination product that is being tested for therapeutic potential against COVID-19, which would support affordability and allow for a supply of generics.8,9 Johnson & Johnson has stated that its potential vaccine – which is expected to begin trials – will be available on a not-for-profit basis during the pandemic.10 Pharma is mobilising substantial efforts to rise to the COVID-19 challenge at hand. However, we need to consider how pharmaceutical innovation for responding to emerging infectious diseases can best be enabled beyond the current crisis. Many public health threats (including those associated with other infectious diseases, bioterrorism agents and antimicrobial resistance) are urgently in need of pharmaceutical innovation, even if their impacts are not as visible to society as COVID-19 is in the immediate term. The pharmaceutical industry has responded to previous public health emergencies associated with infectious disease in recent times – for example those associated with Ebola and Zika outbreaks.11 However, it has done so to a lesser scale than for COVID-19 and with contributions from fewer companies. Similarly, levels of activity in response to the threat of antimicrobial resistance are still low.12 There are important policy questions as to whether – and how – industry could engage with such public health threats to an even greater extent under improved innovation conditions.

**That causes extinction, which outweighs.**

**Millett & Snyder-Beattie ‘17**. Millett, Ph.D., Senior Research Fellow, Future of Humanity Institute, University of Oxford; and Snyder-Beattie, M.S., Director of Research, Future of Humanity Institute, University of Oxford. 08-01-2017. “Existential Risk and Cost-Effective Biosecurity,” Health Security, 15(4), PubMed

In the decades to come, advanced bioweapons could **threaten human existence**. Although the **probability** of human extinction from bioweapons **may** be low, the **expected value** of **reducing** the risk could **still** be **large**, since such risks jeopardize the existence of **all future generations**. We provide an overview of biotechnological extinction risk, make some rough initial estimates for how severe the risks might be, and compare the cost-effectiveness of reducing these extinction-level risks with existing biosecurity work. We find that reducing human extinction risk can be more cost-effective than reducing smaller-scale risks, even when using conservative estimates. This suggests that the risks are not low enough to ignore and that more ought to be done to prevent the worst-case scenarios. How worthwhile is it spending resources to study and mitigate the chance of human extinction from biological risks? The risks of such a catastrophe are presumably low, so a skeptic might argue that addressing such risks would be a waste of scarce resources. In this article, we investigate this position using a cost-effectiveness approach and ultimately conclude that the expected value of reducing these risks is large, especially since such risks jeopardize the existence of all future human lives. **Historically, disease events have been responsible for the greatest death tolls** on humanity. The 1918 flu was responsible for more than 50 million deaths,1 while smallpox killed perhaps 10 times that many in the 20th century alone.2 The Black Death was responsible for killing over 25% of the European population,3 while other pandemics, such as the plague of Justinian, are thought to have killed 25 million in the 6th century—constituting over 10% of the world's population at the time.4 It is an open question whether a future pandemic could result in outright human extinction or the irreversible collapse of civilization. A skeptic would have many good reasons to think that existential risk from disease is unlikely. Such a disease would need to spread worldwide to **remote populations**, overcome **rare genetic resistances**, and **evade detection**, cures, and **countermeasures**. Even evolution itself may work in humanity's favor: **Virulence and transmission is often a trade-off**, and so **evolutionary pressures** could push against maximally lethal wild-type pathogens.5,6 While these arguments point to a very small risk of human extinction, they **do not rule** the possibility **out** entirely. Although rare, there are recorded instances of **species going extinct due to disease**—primarily in amphibians, but also in 1 mammalian species of rat on Christmas Island.7,8 There are also **historical examples of large human populations being almost entirely wiped out** by disease, especially when multiple diseases were simultaneously introduced into a population without immunity. The most striking examples of total population collapse include **native American tribes** exposed to European diseases, such as the Massachusett (86% loss of population), Quiripi-Unquachog (95% loss of population), and the Western Abenaki (which suffered a staggering 98% loss of population).9 In the modern context, no single disease currently exists that combines the worst-case levels of transmissibility, lethality, resistance to countermeasures, and global reach. But **many diseases are proof** of principle that **each worst-case attribute can be realized independently**. For example, some diseases exhibit nearly a 100% case fatality ratio in the absence of treatment, such as rabies or septicemic plague. Other diseases have a track record of spreading to virtually every human community worldwide, such as the 1918 flu,10 and seroprevalence studies indicate that other pathogens, such as chickenpox and HSV-1, can successfully reach over 95% of a population.11,12 Under optimal virulence theory, **natural evolution** would be an **unlikely** source for pathogens with the **highest possible levels of transmissibility, virulence, and global reach**. But **advances in biotech**nology might allow the creation of diseases that **combine such traits**. Recent controversy has **already emerged** over a number of **scientific experiments** that resulted in viruses with enhanced **transmissibility**, **lethality**, and/or the ability to overcome **therapeutics**.13-17 Other experiments demonstrated that mousepox could be modified to have a 100% case fatality rate and render a vaccine ineffective.18 In addition to transmissibility and lethality, studies have shown that other disease traits, such as incubation time, environmental survival, and available vectors, could be modified as well.19-21 Although these experiments had scientific merit and were not conducted with malicious intent, their implications are still worrying. This is especially true given that there is also a **long historical track record** of**state-run bioweapon research** applying cutting-edge science and technology to design agents not previously seen in nature. The Soviet bioweapons program developed agents with traits such as enhanced virulence, resistance to therapies, greater environmental resilience, increased difficulty to diagnose or treat, and which caused unexpected disease presentations and outcomes.22 Delivery capabilities have also been subject to the cutting edge of technical development, with Canadian, US, and UK bioweapon efforts playing a critical role in developing the discipline of aerobiology.23,24 While there is no evidence of state-run bioweapons programs directly attempting to develop or deploy bioweapons that would pose an existential risk, the logic of deterrence and **m**utually **a**ssured **d**estruction could create such incentives in more unstable political environments or following a breakdown of the Biological Weapons Convention.25 The **possibility of a war** between great powers could also increase the pressure to use such weapons—during the World Wars, bioweapons were used across multiple continents, with Germany targeting animals in WWI,26 and Japan using plague to cause an epidemic in China during WWII.27

## Abolish CP

**Text: The World Trade Organization ought to be abolished. The United States ought to independently and without influence from international government reduce IP protection for COVID-19**

**Hawley, senator, JD Yale, 20**

(Josh, 5-5, https://www.nytimes.com/2020/05/05/opinion/hawley-abolish-wto-china.html)

The coronavirus emergency is not only a public health crisis. With [30 million Americans unemployed](https://www.cnbc.com/2020/04/30/us-weekly-jobless-claims.html), it is also an economic crisis. And it has exposed a hard truth about the modern global economy: it weakens American workers and has empowered China’s rise. That must change. The global economic system as we know it is a relic; it requires reform, top to bottom. We should begin with one of its leading institutions, **the World Trade Organization. We should abolish it.**

**Eliminating the WTO ends U.S. global hegemony**

**Bello, PhD, 2000**

(Walden, Sociology @ Stanford, https://users.ox.ac.uk/~magd1352/ecologist/Should%20WTO%20be%20abolished.pdf)

The idea that the world needs the World Trade Organisation (WTO) is one of the biggest lies of our time. The WTO came about, in 1995, mainly because it was in the interest of the US and its corporations. The European Union, Japan and especially the developing countries were mostly ambivalent about the idea; it was the US which drove it on. Why? Because though the US, back in 1948, blocked the formation of an International Trade Organisation (ITO), believing that, at that time, the interests of its corporations would not be served by such a global body, it had changed its mind by the 1990s. Now it wanted an international trade body. Why? Because its global economic dominance was threatened. The flexible GATT (General Agreement on Tariffs and Trade) system, which preceded the WTO, had allowed the emergence of Europe and East Asia as competing industrial centres that threatened US dominance even in many high-tech industries. Under GATT’s system of global agricultural trade, Europe had emerged as a formidable agricultural power even as Third World governments concerned with preserving their agriculture and rural societies limited the penetration of their markets by US agricultural products. In other words, before the WTO, **global trade was growing by leaps and bounds**, but countries were using trade policy to industrialise and adapt to the growth of trade so that their economies would be enhanced by global trade and not be marginalised by it. That was a problem, from the US point of view. And that was why the US needed the WTO. The essence of the WTO is seen in three of its central agreements: the Agreement on Trade Related Intellectual Property Rights (TRIPs), the Agreement on Agriculture (AOA), and the Agreement on Trade Related Investment Measures (TRIMs). The purpose of TRIPs is **not to promote free trade but to enhance monopoly power**. One cannot quarrel with the fact that innovators should have preferential access to the benefits that flow from their innovation for a period of time. TRIPs, however, goes beyond this to institutionalise a monopoly for high-tech corporate innovators, most of them from the North. Among other things, TRIPs provides a generalised minimum patent protection of 20 years; institutes draconian border regulations against products judged to be violating intellectual property rights; and – contrary to the judicial principle of presuming innocence until proven guilty – places the burden of proof on the presumed violator of process patents. What TRIPs does is reinforce the monopolistic or oligopolistic position of US high tech firms such as Microsoft and Intel. It makes industrialisation by imitation or industrialisation via loose conditions of technology transfer – a strategy employed by the US, Germany, Japan, and South Korea during the early phases of their industrialisation – all but impossible. It enables **the technological leader**, in this case **the US, to greatly influence** **the pace of technological and industrial development in the rest of the world**.

**Primacy causes endless war, terror, authoritarianism, prolif, and Russia-China aggression.**

**Ashford, PhD, 19**

(Emma, PoliSci@UVA, Fellow@CATO, Power and Pragmatism: Reforming American Foreign Policy for the 21st Century, in New Voices in Grand Strategy, 4, CNAS)

**Humility is a virtue**. Yet in the last quarter century, American policymakers have been far more likely to embrace the notion of America as the “indispensable nation,” responsible for protecting allies, promoting democracy and human rights, tamping down conflicts, and generally managing global affairs. Compare this ideal to the U.S. track record – **endless Middle Eastern wars, the rise of ISIS, global democratic backsliding, a revanchist Russia, resurgent China**, and a world reeling from the election of President Donald Trump – and this label seems instead **the height of hubris.** Many of the failures of U.S. foreign policy speak for themselves. As the daily drumbeat of bad news attests, interventions in Iraq and Libya were **not victories for human rights or democracy, but rather massively destabilizing** for the Middle East as a whole. Afghanistan – despite initial military successes – has become a quagmire, highlighting the futility of nation- building. Other failures of America’s grand strategy are less visible, but no less damaging. NATO expansion into Eastern Europe helped to reignite hostility between Russia and the West. Worse, it has diluted the alliance’s defensive capacity and its democratic character. And even as the war on terror fades from public view, it remains as open-ended as ever: Today, the United States is **at war in seven countries and engaged in “combating terrorism’ in more than 80**.1 To put it bluntly: America’s strategy since the end of the Cold War – **whether it is called primacy or liberal internationalism** – may not be a total failure, but it **has not been successful** either. Many have tried to place blame for these poor outcomes.2 But recrimination is less important than understanding why America’s strategy has failed so badly and avoiding these mistakes in future. Much of the explanation is the natural outcome of changing constraints. **Iraq and Libya should not be viewed as regrettable anomalies, but rather the logical outcome of unipolarity and America’s liberal internationalist inclination to solve every global problem.** It’s also a reliance on **flawed assumptions** – that what is good for America is always good for the world, for example. Support for dangerous sovereignty-undermining norms adds to the problem; just look at the Responsibility to Protect (R2P), which has proved not to protect populations or stabilize fragile states, but to **provoke chaos, encourage nuclear proliferation, and undermine the international institutions.** Perhaps, if nothing else had changed, a form of watered-down liberal internationalism that foreswore interventionism and drew back from the war on terror might have been possible.3 But international politics are undergoing a period of profound transformation, from unipolarity to regional or even global multipolarity. **Primacy** – and the consistent drumbeat of calls in Washington to do more, always and everywhere – **is neither sustainable nor prudent.** Nor can we fall back on warmed-over Cold War–era strategies better suited to an era of bipolar superpower competition.

## Reform CP

#### Text: The WTO and the United Nations should recommit to a moratorium on internet customs duties and promote women’s economic rights and the member nations of the WTO ought to:

**-Donate $2.6 billion to COVAX**

**-Donate surplus doses and medical supplies to LICS**

**-Refuse to make bilateral deals with vaccine suppliers**

#### Combined WTO and UN action is the best way to boost WTO legitimacy and preserve faith in trade institutions

Murphy-Gregory 15

Hannah Murphy-Gregory, (PhD PoliSci and lecturer), 30 nov 2015, "What's Wrong with the WTO and How to Fix It," Australian Institute of International Affairs, https://www.internationalaffairs.org.au/australianoutlook/whats-wrong-with-the-wto-and-how-to-fix-it/ // AW

The multilateral trading system governed by the World Trade Organisation (WTO) is in serious trouble. In this book, Rorden Wilkinson makes the case that the WTO, as it stands today, is an institution that is not fit for its stated purpose, achieves too little in the way of multilateral trade agreements and exacerbates inequalities between wealthy and developing countries. Moreover, the way in which trade negotiations have been constructed by media reporting and commentary adds to the malaise. Unlike the majority of WTO reform proposals that err on the side of incrementalism, Wilkinson offers up a more radical plan to rebuild the WTO in order to better serve the interests of both the developed and the developing world. His vision is for a more equitable institution that harnesses global trade for development and whilst such rhetoric has surrounded the Doha Development Agenda, the results thus far have been dismal. Wilkinson’s outline of the way in which the WTO actually operates is an antidote to both more rosy accounts of the WTO’s achievements as well as more technical discussions of negotiating rules and norms and the WTO dispute settlement process, the latter of which dominate the scholarly literature. This will come as a relief to both academic readers and those interested in obtaining a better understanding of the mechanics of trade negotiations. Through part I of the book entitled ‘Problems’, the author traces the historical development of the multilateral trading system from its shaky start (the stillbirth of the International Trade Organisation), the operating procedures of GATT and the eventual establishment of the WTO in 1995. Throughout this analysis, Wilkinson adeptly highlights that the multilateral trade regime is an exercise of power by the wealthy industrialised states to the detriment of developing countries. Having dissected and distilled the operations of the WTO, Wilkinson calls for a new, more socially progressive institution that will see trade liberalisation not as a goal unto itself but as a means to realising global social goods such as greater equality between the rich and the poor and the preservation of the global environment. In part II, ‘Solutions’, Wilkinson reviews and categorises recent WTO reform proposals, finding that most are too cautious and do not challenge the power inequalities embedded in the WTO’s institutional design. Instead, Wilkinson argues that the WTO must be understood as a mechanism to fulfil social aspirations via a reconfigured mission statement, closer collaboration with the UN institutions and a shift from adversarial relationships between members to **incentives-based governance that promotes economic growth via trade and technology transfer**. Most interestingly, Wilkinson argues that states would not be the chief parties to the organisation “but rather geographic areas and specific agents within, between and across states”. Of course, the most difficult aspect of rebuilding the WTO is working out how to implement change. Several discrete steps towards change are put forward including constructing a new narrative, increasing public debate via a global public forum on trade and suggestions about how to mobilise the WTO’s existing architecture.

#### The CP solves the aff; COVAX is struggling, but support will allow them to mend existing access inequalities--also prevents WTO collapse

**Samuel 5/20/21** (Sigal Samuel is a Senior Reporter for Vox's Future Perfect and Co-Host of the Future Perfect podcast. She writes about artificial intelligence, neuroscience, climate change, and the intersection of technology with ethics and religion. Samuel, Sigal. “Why Covax, the Fund to Vaccinate the World, Is Struggling.” Vox. Vox, May 20, 2021. <https://www.vox.com/future-perfect/22440986/covax-challenges-covid-19-vaccines-global-inequity.)//HW-Max> Lee

Early on in the pandemic, global health experts envisioned a nightmare scenario: Covid-19 vaccines are created, but they go almost exclusively to rich countries that can afford to buy them. People in poorer countries are left to get sick and die. To prevent this, the experts set up an international initiative called Covax, designed to make sure every country in the world gets access to vaccines regardless of its ability to pay. In the fall of 2020, Covax set a clear goal: Buy 2 billion doses and make them available to nations in need before the end of 2021. But we’re now nearly five months into the year, and Covax has delivered just over 68 million doses. In other words, it’s only 3.4 percent of the way to its goal. The nightmare has become reality. Around 1.5 billion vaccine doses have been administered around the world — yet only 0.3 percent have gone to low-income countries. And in places like India and Brazil, thousands of unvaccinated people are dying every day of Covid-19, even as many Americans revel in their vaccinated status. “People keep asking me, ‘What keeps you awake at night? The variants?’ Christ, no! It’s human behavior — the unwillingness to share!” said Bruce Aylward, a senior adviser at the World Health Organization (WHO) who works on Covax. “How do other people sleep at night? They should be so energized to fix this!” If the epidemiologist and his colleagues at Covax have not managed to avert global vaccine inequity, it’s not for lack of trying. They’ve gotten lifesaving doses to 124 countries from Argentina to Zambia, and they’ve pushed wealthy countries to help them do more. “Covax has been an essential tool. I think that’s pretty indisputable,” said Kate Dodson, the vice president for global health at the UN Foundation. But, she added, “They’re struggling right now.” So what explains Covax’s struggles? What are the biggest obstacles getting in the way? The experts I talked to identified three main problems: Money, vaccine supply, and global willingness to share have all been too constrained. But, the experts emphasized, these are solvable problems. And there are things everyday individuals can do to help. “The money was insufficient, and the money was late” The WHO is one of three groups leading Covax. The other two are Gavi, a public-private partnership that spearheads immunization efforts in developing countries, and the Coalition for Epidemic Preparedness Innovations, an international collaboration (formed as a Gates Foundation initiative after the West African Ebola epidemic) to make vaccines available quickly when outbreaks happen. All three groups have collaborated to make Covax into a unique not-for-profit financing mechanism. It’s designed to work kind of like a mutual fund, but for vaccines. The idea was that high-income countries would pool their money to fund research and development for a diversified portfolio of vaccine candidates. That investment would up the chances that they’d land on an effective vaccine, and it would also serve to fund free vaccine doses for 92 lower-income countries that couldn’t afford to pay. It sounded like a win-win. But for it to work as planned, enough rich countries had to buy into Covax and commit to getting their doses through the fund. Instead, many governments made separate bilateral deals with companies like Pfizer and Moderna, locking up in contracts the vast majority of doses slated to be produced in 2021. That robbed Covax — which didn’t have much money on hand in the early stage of the pandemic — of the opportunity to buy vaccines for less wealthy countries. “The main issue is that the money was insufficient, and the money was late,” said Amanda Glassman, director of global health policy at the Center for Global Development, a nonprofit think tank based in London and Washington, DC. “If they’d had all the money in March 2020, we’d be in a different space in terms of the delivery. There was more wiggle room in March through July of last year to reserve doses if they’d had the money in place.” Covax was stymied in its ability to buy. And even now, it still doesn’t have the funding to buy enough vaccine doses to cover 20 percent of the population in each low-income country — the health care workers and most vulnerable groups — by the end of 2021. To achieve that, it needs to raise another $2.6 billion. Aylward was clear that that remains Covax’s foremost obstacle. “The first thing we need is money,” he said. You might wonder how much good it would do for Covax to have more cash on hand right now. With so many doses already locked up in contracts, would extra money get shots into arms any faster? The experts I spoke to acknowledged that it wouldn’t enable people in low-income countries to get shots tomorrow, but it would certainly bump up the timeline. For some populations, it could mean being immunized in the third quarter of 2021 rather than the fourth; for others, it could mean the difference between early and mid-2022. It’s crucial for Covax to get more funding now because it will need cash in hand to buy more of the vaccines that are starting to coming online, such as Novavax (an American-made vaccine) and Sinopharm (a vaccine created in China and recently approved for emergency use by the WHO). By June, Covax needs at least $1.6 billion above currently secured funding in order to lock in doses for 2021 and early 2022, a Gavi spokesperson said. Otherwise, the doses may get snatched up by wealthy countries just like they did in 2020. “Supply is incredibly tight” The second huge challenge facing Covax is the simple fact that vaccines and the raw materials needed to make them are still in short supply. That’s partly because rich countries bought up a lot of the early vaccine supply, as noted above. But it’s also because the pandemic itself sometimes makes it hard to stick to a production schedule. The main supplier to Covax is the Serum Institute of India, which produces the AstraZeneca vaccine. But with Covid-19 raging in India, the supply has been necessarily turned to domestic use. Export restrictions mean that Covax is receiving much less vaccine than expected and has had to delay its shipments to countries. As Dodson said, “Supply is incredibly tight for Covax.” It’s a good illustration of why we need a global plan to increase the scale and security of vaccine production. “We need a way to — faster than it’s ever been done before, globally, in concert — work to dramatically increase the number of vaccine doses that are going to be available in 2021 and early 2022,” said Ruth Faden, a founder of the Johns Hopkins Berman Institute of Bioethics, who co-drafted the WHO’s Values Framework for vaccine allocation. “Really what you would want to see is an Operation Warp Speed at the global level.” That won’t be an easy operation to pull off, because it’s not just a matter of building more plants with more production capacity in more countries. It’ll require coordination on a number of underlying factors — transferring technological know-how and personnel to countries in need, sending raw materials to prevent manufacturing bottlenecks, and loosening intellectual property rights. (The Biden administration’s decision to support patent waivers for Covid-19 vaccines will hopefully help with the latter.) Aylward emphasized that it’s not enough to just scale up production — a good part of that production needs to be earmarked for Covax. As companies learn how to optimize their capacity, he wants them to give Covax the right of first refusal on any vaccine they produce in excess of their original targets. “We need people to share” Last but not least, Covax needs wealthy countries to share. That can mean sharing doses that have already been delivered. The US, for instance, currently has about 73 million doses sitting in its stockpile. But ideally, wealthy countries should donate doses even before they arrive on their shores. “We don’t want them to receive doses and then say ‘You know what, we decided we don’t want this, we’ll give this to you,’” Aylward said. Transferring doses after they’ve been delivered can be tricky because of the need to guarantee that “chain of custody” is intact — that cold storage requirements, for example, were at no point interrupted. “We need people to share their space in the queue.” In other words, when new vaccine doses come online, rich countries should not take up all the space at the front of the line to receive them. If they’ve already contracted with the vaccine maker, their contract is essentially holding their place in line — but they can, and should, offer that place to a country in more urgent need. The US can certainly afford to do this. By July, Duke University researchers estimate, the country will likely have at least 300 million excess doses — and that estimate is assuming that the US will retain enough doses to vaccinate the vast majority of children. In other words, every eligible or soon-to-be-eligible American could get vaccinated, and there would still be 300 million doses left over — practically enough to give an extra dose to every person in the country. A surplus of that magnitude is so staggering that not sharing it with the world starts to look morally unjustifiable. What’s more, Aylward said countries shouldn’t focus only on donating excess doses. If they wait until they’ve vaccinated every eligible citizen, they’ll spend several more months immunizing people who are at relatively low risk, while adults at high risk in countries like India go unvaccinated. Instead, rich countries should act more like Sweden, which recently decided to donate 1 million of its doses — one-fifth of its current supply — even though just over 30 percent of its population has received a shot. This month, the WHO Foundation launched a fundraising campaign called “Go Give One,” which urges individuals to donate $7 to buy a vaccine dose for someone in a low-income country through Covax. “There was huge popular demand among private individuals to contribute to address this important global issue, so this campaign gave an outlet to that demand,” a Gavi spokesperson said. Faden said that if enough people were to contribute, it could potentially make a significant difference. “If you can come up with the money — say, $7 — then of course you ought to do it,” she said. “At this point, it’s everyone’s responsibility. Everyone should be invested as a matter of obligation to global justice. Literally as a matter of duty.” But she was clear that retail fundraising — getting small donations from many individuals — is not going to net Covax the billions of dollars it needs. That’s really a job for governments, and it requires the leaders of the world’s wealthy countries to step up. Dodson personally donated to Go Give One and also ran a Facebook fundraiser for the campaign, which raised $1,000. “I feel really proud,” she told me. But she thinks the campaign’s main power may lie in its potential to catalyze government spending. “When governments see everyday individuals saying, ‘We care about vaccine inequity, and we’re willing to put our pocketbooks against it,’ then that can help spur more political will.” She also believes that advocacy in this arena is underfunded, though it can move the needle in a big way — as we saw when activist groups pressured Biden to back patent waivers. Arguably, donors could have a bigger impact by donating to an advocacy group than by donating to Go Give One, though this field is so new that it’s hard to know for sure. For donors who prefer to invest in advocacy, Dodson and Glassman both recommended three groups: Global Citizen, the ONE Campaign, and the Pandemic Action Network. “To the extent that advocacy movements help reduce the political cost of doing the right thing and create political benefits, I think it’s a good thing,” Glassman said. “And the amounts of money at stake that they could potentially influence are large, especially in the United States.” Aylward, for his part, is hoping that more individuals and governments will start to show concern for the world by investing in Covax. “You’ve got this beautiful machine,” he said. “Put it to work.”

## Case

### WTO Cred

They don't solve WTO cred: their Meyer 6 card is NOT about a unilateral US waiver. It says: "We must act now to get all our ambassadors to the table to negotiate a text" on the issue of an IP waiver for COVID vaccines."

It also says that other countries are key: "In the case of the COVID-19 vaccine IP waiver, it would mean standing up to the European Union, and Germany in particular, as well as countries such as Canada and the U.K.—the U.S."

They don't access the nuke war impact: their Hamann card is about voluntary compliance with WTO rules, which isn't what the plan does! The plan is ONLY unilateral US action and doesn't require other nations to voluntarily sign on.

#### Empirics confirm the WTO causes conflict --- it limits options for states to take action against others, which escalates tensions by cutting off avenues for bargaining and conflict resolution

Chatagnier and Lim 16 J. Tyson Chatagnier and Haeyong Lim, Professors of Political Science at the University of Houston, “Does the WTO Exacerbate International Conflict?” Texas Triangle. 2016. http://texastriangle.weebly.com/uploads/2/5/2/4/25249202/chatagnier\_lim\_wto\_conflict.pdf

While there has been significant empirical work on issue linkage in other areas (e.g., Davis 2004; Long and Leeds 2006; Poast 2012, 2013), there is relatively little work on the pacifying effect of issue linkage (but see Wiegand 2009). One reason might be that coding is quite demanding, and that, unlike formal alliances or trade deals, international agreements over conflict are rarely well documented.1 Nonetheless, the theoretical literature suggests that there should be a negative relationship between the ability to link issues together and the likelihood of dyadic conflict. We provide an indirect test of this hypothesis below. The GATT and the WTO In the wake of the devastation of two world wars, American and European governments looked for ways to bring about peace and prosperity in the international system. Amid fears that the destabilization of the Great Depression had been precipitated by protectionist trade policies, leaders sought to establish an institution that could facilitate trade liberalization and end trade wars. To 1This may be why Wiegand’s study—which is qualitative in nature—is one of the few that attempts to examine issue linkage directly. 5 this end, in 1947, they created the GATT. The GATT was a multilateral agreement between states (23, initially, but more than 100 by the time it was subsumed by the WTO) to reduce tariffs and other trade barriers substantially and to eliminate preferential treatment among signatories. The institution provided states with a set of agreed-upon rules, as well as a forum for negotiation, facilitating cooperation among members. When one member state believed that another was in violation of the agreement, it could invoke provisions in Articles XXII and XXIII of the agreement that called for consultation and dispute settlement. While this allowed parties to form an investigative panel to assess and resolve the dispute, Zangl (2008) points out three major obstacles to settlement: panel composition was determined by the disputants (Jackson 1997); panel reports were the result of political negotiation, rather than legal decisions (Zangl 2008); and both empanelment (Hudec 1993) and sanctions (Rosendorff 2005) required unanimous approval, meaning that the defendant ultimately held veto power. Such a system is ultimately predicated on compromise and the negotiation of self-enforcing agreements. Under GATT, aggrieved parties had no recourse but to persuade violators to alter their behavior. With the establishment of the WTO, the aforementioned problems—along with a host of other issues—were resolved. The dispute settlement mechanism (DSM) under the WTO is highly legalized, with independent judicial bodies that are charged with rendering verdicts and authorizing sanctions (Goldstein and Martin 2000; Rosendorff 2005). Under the present system, complainants have significantly increased power, and they are no longer restricted to negotiating in order to convince defendants to comply with the rules.2 For this reason, it should be unsurprising that compliance has generally increased following the judicialization of the institution (Jackson 1997; Zangl 2008). The move from the GATT framework to the WTO undoubtedly deepened the institutionalization of the trade agreement, binding its member states more tightly. Kant’s (2007 [1795]) idea of a “federation of free states” dealt primarily with the imposition of law and order upon the anarchic international system. By increasing the institution’s degree of legalization, the trade organization 2Of course, negotiation still occurs within the WTO DSM. However, disputants do so in the shadow of the panel, significantly increasing the complainant’s bargaining leverage (Poletti, De Bièvre and Chatagnier 2015). 6 brought itself closer to the Kantian ideal.3 Indeed, while the GATT satisfies only the second and fourth roles of an IGO listed above (to some extent), the WTO quite clearly fulfills all four. From this perspective, we would expect the more heavily-institutionalized WTO to reduce conflict among member states to a greater degree than its predecessor. Hypothesis 1. The establishment of the WTO reduced the instances of militarized conflict among member states. At the same time, the increase in the organization’s power has limited the actions of the constituent actors. WTO members are required to behave in a non-discriminatory manner and to abide by agreed-upon standards. Failure to comply with these rules can lead to sanctions. While many of these behaviors were prohibited under the GATT as well, the much more credible threat of punishment likely reduces a state’s economic toolkit to a greater degree. If the U.S. believes, for example, that Chinese currency manipulation is adversely affecting trade, it cannot retaliate with tariffs or import quotas without a favorable ruling from the DSM. To do otherwise would be to invite sanctions against itself. Moreover, states are stripped of a range of options that could “sweeten the deal” in negotiations. A state that attempted to offer favorable terms of trade in exchange for concessions on a different dimension would be unable to do so without offering the same terms to all other trading partners; a state that offered to rein in a trade violation would have no leverage as the opponent could appeal to the DSM to have the trade-distorting measure removed. Thus, states are left with fewer options for issue-linkage in bargaining scenarios, which suggests an opposing hypothesis.

#### Interdependence doesn’t solve war – prefer studies at the multilateral not just dyadic level – competitive dynamics outweigh conflict dampening incentives.

Chatagnier and Kavakli 17 – (2017, J. Tyson, PhD in Political Science, Assistant Professor in the Department of Political Science at the University of Houston, and Kerim Can, PhD in Political Science, assistant professor at the Faculty of Arts and Social Sciences at Sabanci University in Turkey, “From Economic Competition to Military Combat: Export Similarity and International Conflict,” Journal of Conflict Resolution, Vol 61, Issue 7, 2017)

International trade has long been thought to facilitate peace among nations (Kant [1795] 1970). A voluntary exchange of goods that leaves both parties better off inherently raises the value of each side to the other, increasing the cost of conflict. The belief that economic interaction can ignite a positive dynamic of cooperation and reduce conflictual behavior is so intuitive and widespread that some political pundits have even heralded free trade as the path to world peace (see, e.g., Griswold 1998; Boudreaux 2006).The conventional wisdom within the international relations literature (e.g., Oneal and Russett 1997; Gartzke, Li, and Boehmer 2003; Polachek and Xiang 2010) reinforces these claims, having found consistent empirical (and theoretical) links between trade and peace. At the same time, however, there is certainly evidence that trade can exacerbate rivalry and conflict between states. Throughout history, states have fought their competitors for advantage (i.e., access to inputs and markets) in the global marketplace. For instance, in his authoritative account of the Anglo-German rivalry before World War I, Kennedy (1980, 464) concludes that “the most profound cause [of the conflict], surely, was economic”. More specifically, the cause was “the detectable increase in Anglo-German trade rivalry since Bismarck’s time as the latter country steadily became more competitive.” Moreover, while modern empirical international relations research has largely come down on the side of the neoliberals, it has not been monolithic. Indeed, numerous studies by Barbieri (1996, 2002) have demonstrated that increased trade actually has the potential to aggravate tensions between states. These inconsistencies in both the historical and analytical records raise questions about the simplicity of the link between trade and conflict. Additionally, the vast majority of previous work considers only the bilateral effects of trade, neglecting the way in which trade between two actors can affect a third. We remedy this oversight by analyzing the effects of trade competition, arguing that the tension produced by export competition can be an important source of international conflict. More specifically, we highlight that economic actors who face foreign competition have an incentive to use military power to gain an advantage in international markets. These domestic actors can use their economic power to influence their nation’s political elites and increase the likelihood that economic conflict erupts into war. We support this theoretical argument with several well-established historical cases including the seventeenth-century Dutch-English commercial rivalry, the pre-World War I Anglo-German rivalry, and the 1990 invasion of Kuwait by Iraq. Our argument suggests that, although trade can have a pacifying direct effect at the dyadic level, it also has strong indirect effects, which can be conflict aggravating. We test this argument using commodity-level trade data from 1962 to 2000. We measure each country pair’s portfolio similarity along nearly 1,300 commodity categories and test the effect of this variable on several indicators of international conflict. Our results strongly support our claim that countries that produce and export similar goods are significantly more likely to fight, even taking into account their bilateral trade. These findings are robust to several checks on model specification as well as alternative explanations. We also show that our findings are not driven by oil or other strategic resources and that they hold for both raw and manufactured goods. In light of these results, we are confident that we have identified a significant and practically important cause of war.

### COVID

#### TL -- their only COVID impact scenario is about future pandemics, there’s no reason in the 1AC why COVID waivers solve that--only new innovation can

**No solvency and reject "empirical" claims -- vaccines require complex infrastructure to manufacture, not just patents**

**Hotez 5/10** [Peter J. Hotez, Maria Elena Bottazzi, and Prashant Yadav. "Producing a Vaccine Requires More Than a Patent," Foreign Affairs, 5-10-2021, accessed 8-8-2021, https://www.foreignaffairs.com/articles/united-states/2021-05-10/producing-vaccine-requires-more-patent] HWIC

On May 5, President Joe Biden announced that the United States would support an international bid to waive intellectual property rights to vaccines for the duration of the coronavirus pandemic, thereby ostensibly allowing other countries to ramp up production even of the sophisticated technology behind the Pfizer-BioNTech and Moderna vaccines against COVID-19. Many in the global health community and developing world welcomed the decision as a victory for greater equity in vaccine distribution, in which middle- and low-income countries are lagging far behind wealthy ones. But the jubilation may be premature. The drive for intellectual property waivers originates in part from the world’s experience fighting the last war, against HIV/AIDS. Patent pools, intellectual property waivers, and other liberalizing mechanisms were urgent in assuring equity of access to lifesaving drugs during that epidemic. But these tools are better suited to medicines and other pharmaceuticals than to vaccines. Producing vaccines—particularly those as technologically complex as the messenger RNA (mRNA) inoculations against COVID-19—requires not only patents but an entire infrastructure that cannot be transferred overnight. The sharing of patents is an important and welcome development for the long term, but it may not even be the most pressing first step. JUST OPEN THE SPIGOT At the turn of the millennium, multinational pharmaceutical companies were charging $10,000 per patient for a daily drug regimen that could keep those infected with HIV/AIDS alive. Those in low- and middle-income countries in Africa and elsewhere could access this cocktail only under limited circumstances. Then, in 2001, the Indian drug manufacturer Cipla Limited began producing versions of a triple antiretroviral drug cocktail for a mere $350. Cipla, in collaboration with Médecins Sans Frontières (Doctors Without Borders), helped usher in a new era of global access to essential medicines—one that justified relaxing or even ignoring international patents and other property rights to produce and distribute an important and lifesaving drug as a generic. Since that time, global health advocacy organizations have found increasingly sophisticated ways to work with multinationals in ensuring access to essential medicines for low- and middle-income countries. In the 2010s, the global health initiative Unitaid helped create a Medicines Patent Pool, in which pharmaceutical companies from all over the world offered antiretroviral drug licenses, thereby creating a path for developing generic versions so long as the patent holders received royalties. The mechanism supplied voluntary licenses to new producers even while protecting the legal rights of the drugs’ original manufacturers. Companies such as Gilead, for example, have supplied voluntary licenses for their antivirals directly to generic manufacturers, allowing for tiered pricing across countries. Barely any COVID-19 vaccines have been administered in the African continent or in low- or middle-income countries in Asia and Latin America. Global health professionals have understandably sought to ascertain whether a similar approach could help make the distribution of COVID-19 vaccines less lopsided. More than one billion vaccine doses have now been administered—but overwhelmingly to people living in just a few countries. More than half have been administered in the United States (250 million) and China (290 million) alone, followed by India (160 million), the United Kingdom (51 million), and Germany (32 million). In contrast, for all practical purposes, barely any COVID-19 vaccines have been [administered](https://www.nytimes.com/interactive/2021/world/covid-vaccinations-tracker.html) in the African continent or in low- or middle-income countries in Asia and Latin America. Global health advocates have responded to this inequity by seeking to apply the lessons they learned from antiretroviral drugs and demanding patent pools or other intellectual property waivers for COVID-19 vaccines. In March 2021, Médecins Sans Frontières organized protests at the World Trade Organization (WTO) headquarters in Geneva, unfurling a banner that read, “No COVID Monopolies—Wealthy Countries Stop Blocking TRIPS Waiver,” referring to the organization’s Agreement on Trade-Related Aspects of Intellectual Property Rights. The assumption underlying such demands is that intellectual property is a crucial barrier blocking vaccine developers, especially in low- and middle-income countries, from producing COVID-19 vaccines to scale—particularly the high-performing mRNA vaccines that Pfizer-BioNTech and Moderna currently produce. These vaccines elicit more than 90 percent protective immunity against both symptomatic illness and documented infection, including asymptomatic infection, with COVID-19. They are successfully driving the recovery of the United States, Israel, and other nations. But so far, mRNA vaccines are mostly invisible to Africa, Latin America, and low- and middle-income countries in other regions. The hope of those pushing for TRIPS waivers and patent pools is that these will unleash the technology to make the recovery global. IT TAKES A WHOLE ECOSYSTEM Intellectual property sharing may be helpful in the long term. But producing complicated biologics, especially innovative ones such as mRNA or adenovirus-vectored vaccines, is not solely a matter of patent access. Small-molecule antiviral drugs are comparatively straightforward: the multistep chemical processes through which they are synthesized are often fully detailed in published patents or scientific papers. Chemists and formulation experts can often synthesize and scale up production just from knowing the drug structure. But vaccines are different. Producing and manufacturing lipid-encased mRNA molecules, recombinant adenoviruses, or even the proteins or whole inactivated viruses used in older-generation vaccines requires a far higher level of sophistication than is needed for producing small-molecule drugs. Moreover, vaccine production must meet stringent requirements for quality control, quality assurance, and regulatory oversight. The **effective transfer of such complex technology requires a receiving ecosystem that can take years, sometimes decades, to build**. Countries seeking to ramp up vaccine production will need to train staff scientists and technicians. They will also need scientific administrators versed not only in basic research and development but also in detailed record keeping, including specific documentation practices such as batch production records. Moreover, they will need strong quality control systems and regulatory guardrails. Building such an infrastructure requires intensive training and often considerable financial investment and risk. It also takes time—by some estimates, vaccine development requires at least 11 years, and even then the probability that such efforts will result in bringing a vaccine to market is less than ten percent. Consider that the COVID-19 vaccines were themselves the outcome of decades of research and development. Few nations are prepared to take such risks. Only a handful of low- or middle-income countries currently have the capacity to produce new vaccines. Only a handful of low- or middle-income countries currently have the capacity to produce new vaccines. The most notable and largest is India, which currently makes the adenovirus-vectored vaccines developed by Janssen and by Oxford and AstraZeneca, as well as an older-technology recombinant protein vaccine and a whole inactivated virus vaccine. Manufacturers in Brazil, Cuba, and some Southeast Asian countries have experience producing childhood vaccines and may be able to develop the capacity to make COVID-19 vaccines as well. Other possibilities may develop elsewhere, including in the Middle East and Africa. But in the near term, such manufacturers will require financing, access to very large amounts of raw materials and supplies (possibly including relaxation of export controls), and some technical expertise in manufacturing and quality control if they are to produce the existing vaccines against COVID-19. Vaccinating India alone will require almost two billion doses, and more than 12 billion doses will be required to vaccinate the world. The emergence of new variants and the need for booster doses may increase demand even further. Whether mRNA vaccine technology can be scaled to produce billions of doses in 2021, or even by early 2022, remains entirely unknown, but the goal is worth pursuing. To this end, some kind of patent relaxation may be necessary, but far from sufficient. Would-be producers will need technical know-how, regulatory controls, and components that are currently in very short supply, such as nucleotides and lipids.

#### Tech transfer is key and not included under IP

Smith 05/05

(Laura Smith-Spark; Newsdesk Editor, CNN Digital; (05-05-21) Rich nations urged to share vaccine knowledge while WTO debates waiving patents; CNN; <https://www.cnn.com/2021/05/05/world/covid-19-vaccine-patents-wto-intl/index.html>; CKD)

Thomas Bollyky, director of the Global Health Program at the Council on Foreign Relations, told CNN on Friday that what's really needed to scale up global manufacturing of vaccines is technology transfer. "It's not just a matter of intellectual property. It's also the transfer of know-how," he said. "I don't think there's clear evidence that a waiver of an intellectual property is going to be the best way for that technology transfer to occur." Waiving patents will not work in the same way for vaccines as it has for drugs, Bollyky said. For HIV drugs, for example, manufacturers were more or less able to reverse engineer them without much help from the original developer. "It's very different for vaccines, where it's really a biological process as much as a product. It's hard to scale up manufacturing in this process for the original company, let alone another manufacturer trying to figure this out without assistance," he said. "It requires a lot of knowledge that's not part of the IP." The deal between AstraZeneca and the Serum Institute of India is a successful example of such technology transfer, Bollyky said, where the licensing of IP happened voluntarily. "The question is what can we do to facilitate more deals like the one between AstraZeneca and the Serum Institute of India to have this transfer," he said. Michael Head, senior research fellow in global health at the University of Southampton, in England, told CNN that increasing regional manufacturing capacity, particularly in the global south, was key -- and should be a focus between pandemics. "Sharing intellectual property during the pandemic is something that should happen but that doesn't resolve the issues," he said. "Manufacturing vaccines is hard. It's hard to rapidly set up a new site with all the equipment, infrastructure, all the vaccine ingredients, with suitable staff to produce a large number of high quality vaccine products." Philanthropist Bill Gates, a major supporter of [global Covid-19 vaccine equity](https://www.cnn.com/2021/02/05/world/covax-explainer-intl/index.html) through the Bill & Melinda Gates Foundation, also [told Sky News](https://news.sky.com/story/covid-19-bill-gates-hopeful-world-completely-back-to-normal-by-end-of-2022-and-vaccine-sharing-to-ramp-up-12285840) last month that he did not believe overriding IP rules was the answer. "There's only so many vaccine factories in the world and people are very serious about the safety of vaccines," he said. "The thing that's holding things back in this case is not intellectual property. There's not, like, some idle vaccine factory with regulatory approval that makes magically safe vaccines. You've got to do the trials on these things and every manufacturing process has to be looked at in a very careful way."

#### The squo is goldilocks--COVAX and licensing agreements ensure vaccine access now, but patent waiver causes unsafe vaccines and decks innovation.

Crosby et al. 21 (Daniel Crosby [Lawyer specializing in international trade/law], Evan Diamond [Lawyer specializing in pharmaceutical and biotechnology patent litigation], Isabel Fernandez de la Cuesta [Lawyer specializing in international treaty arbitration], Jamieson Greer [Lawyer specializing in international trade], Jeffrey Telep [Lawyer specializing in international trade litigation], Brian White [Lawyer specializing in international arbitration], Group of Nearly 60 WTO Members Seek Unprecedented Waiver from WTO Intellectual Property Protection for COVID-related Medical Products, JD Supra, 3/5/2021, <https://www.jdsupra.com/legalnews/group-of-nearly-60-wto-members-seek-2523821/>) hwof

Efforts to develop, produce, and equitably distribute medical products. WTO Members recognize that unprecedented demand for medical products used in the fight against COVID-19 has far outstripped supply of required supplies. Several WTO Members have pointed out that intellectual property protections have not limited production of vaccines and other medical products. Rather, these Members have argued that intellectual property protection has incentivized the research, development and production of the necessary vaccines, treatments and products. Moreover, the international community is coordinating and funding equitable COVID-19 vaccine distribution globally through COVAX, which is organized by Gavi, the Vaccine Alliance, the World Health Organization and the Coalition for Epidemic Preparedness Innovations. Despite these facts, less developed countries continue to push for a waiver of all intellectual property protection for medical products related to the pandemic. Waiver risks uncontrolled use of patented technologies, without improving vaccine access. Pharmaceutical companies can provide, and have provided, licenses to distribute or scale-up production of COVID-19 vaccines and therapies at reduced cost. Such license agreements allow for expanded access in low- and middle-income countries, while also setting reasonable parameters so that patents and other IP rights are used to address the specific medical needs of the COVID-19

pandemic at hand, and not for other purposes. License agreements also allow for orderly technology transfer, including of unpatented “trade secret” information and other critical “know-how,” that may be essential to efficiently producing and scaling-up safe and effective versions of technologically complex vaccines and biologic drug products. Under the present TRIPS waiver proposal, however, member countries could try to exploit an extraordinarily broad scope of IP and copy patented technologies so long as they are “in relation to prevention, containment or treatment of COVID-19.” For example, under an expansive reading of the proposed waiver language, a member country could try to produce patented pharmaceutical compounds that have other indicated uses predating COVID-19, if such compounds had later been studied or experimentally used for potential symptomatic relief or antiviral activity in COVID-19 patients. The same risks may be faced by manufacturers of patented materials or devices that have multiple uses predating COVID-19, but also may be used as “personal protective equipment” or components thereof, or in other measures arguably relating to COVID-19 “prevention” or “containment.” At the same time, it is unclear how the proposed TRIPS waiver could provide the technology transfer and know-how critical for making the complex molecules and formulations constituting the various COVID-19 vaccines. Vaccine manufacture undertaken by an unauthorized party without the proper processes and controls could result in a different product that is potentially ineffective or results in unwanted health consequences. And even if an unauthorized manufacturer could overcome those substantial hurdles to reverse-engineer and scale up a safe and effective vaccine copy, it would likely take substantial time and a series of failures to do so. Notably, several of the original COVID-19 vaccine developers have recently faced low product yield and other manufacturing challenges during pre-commercial scale-up efforts and the initial months of commercial production.