## 1

#### 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.

#### Standards:

#### [1] precision – the counter-interp justifies them arbitrarily doing away with random words in the resolution which decks negative ground and preparation because the aff is no longer bounded by the resolution. Independent voter for jurisdiction – the judge doesn’t have the jurisdiction to vote aff if there wasn’t a legitimate aff.

#### [2] Limits and ground – their model allows affs to defend anything from India to US to Indonesia— there's no universal DA since each has different functions and political implications — that explodes neg prep and leads to random country of the week affs which makes cutting stable neg links impossible — limits key to reciprocal engagement since they create a caselist for neg prep and it takes out ground like DAs to certain nations which are some of the few neg generics when affs spec nations.

#### [3] TVA solves – you could’ve read your plan as an advantage under a whole res advocacy. Potential abuse doesn’t justify in round abuse, and having no prep leads to cheaty word PICs and Process Cps which are net worse

#### Fairness – debate is a competitive activity that requires fairness for objective evaluation.

#### Drop the debater – a] deter future abuse and b] set better norms for debate.

#### Competing interps – [a] reasonability is arbitrary and encourages judge intervention since there’s no clear norm, [b] it creates a race to the top where we create the best possible norms for debate.

#### No RVIs – a] illogical, you don’t win for proving that you meet the burden of being fair, logic outweighs since it’s a prerequisite for evaluating any other argument, b] RVIs incentivize baiting theory and prepping it out which leads to maximally abusive practices

## 2

#### Interp: If affirmatives specify beyond normal means, their plan texts must have a carded solvency advocate that advocates for their specific plan.

#### Violation: they don’t. Abazi is about the current state of affairs and doesn’t say anything about the 1ac plan text. Vandekerckhove literally just says that the squo EU trade secrets directive is bad, nothing about reducing them in your specific manner. Hold the line – they have zero card in the 1AC that specifies anything remotely close to their extremely specific plan text.

#### [1] limits – you have infinite possible affs uncontrained by the topic literature – you can make up any affirmative you want, which kills neg prep and erases the role of the negative since there’s no prep against an aff that does not exist

#### [2] strat skew – no solvency advocate to bind the plan text allows the 1ar to shift out of all neg ground and links – outweighs since even if we do have ground on your aff, you can just shift out of it.

#### [3] topic literature – no solvency advocate means there’s absolutely no 1nc evidence specific to this aff that can engage – completely destroys topic ed which outweighs other education impacts on urgency.

## 3

### 1NC – FW

#### Permissibility and presumption negate – [a] the resolution indicates the aff has to prove an obligation, and permissibility would deny the existence of an obligation [b] Statements are more often false than true because any part can be false. This means you negate if there is no offense because the resolution is probably false.

#### Ethics must begin a priori:

#### [1] Uncertainty – our experiences are inaccessible to others which allows people to say they don’t experience the same, however a priori principles are universally applied to all agents.

#### [2] Bindingness – I can keep asking “why should I follow this” which results in skep since obligations are predicated on ignorantly accepting rules. Only reason solves since asking “why reason?” requires reason which concedes its authority and equally proves agency as constitutive

#### That means we must universally will maxims— any non-universalizable norm justifies someone’s ability to impede on your ends.

#### Thus, the standard is consistency with the categorical imperative.

#### Prefer the standard:

#### Performativity – freedom is the key to the process of justification of arguments. Willing that we should abide by their ethical theory presupposes that we own ourselves in the first place. Thus, it is logically incoherent to justify the neg arguments/standard without first willing that we can pursue ends free from others

### 1NC – Offense

#### 1] Intellectual property is an inalienable personal right of economic use

**Pozzo 6** Pozzo, Riccardo. “Immanuel Kant on Intellectual Property.” Trans/Form/Ação, vol. 29, no. 2, 2006, pp. 11–18., doi:10.1590/s0101-31732006000200002. SJ//DA recut Cookie JX

Corpus mysticum, opus mysticum, propriété incorporelle, proprietà letteraria, geistiges Eigentum. All these terms mean **intellectual property, the existence of which is intuitively clear because of the unbreakable bond that ties the work to its creator.** The book belongs to whomever has written it, the picture to whomever has painted it, the sculpture to whomever has sculpted it; and this independently from the number of exemplars of the book or of the work of art in their passages from owner to owner. The initial bond cannot change and it ensures the author authority on the work. Kant writes in section 31/II of the Metaphysics of Morals: “Why does unauthorized publishing, which strikes one even at first glance as unjust, still have an appearance of being rightful? Because on the one hand a book is a corporeal artifact (opus mechanicum) that can be reproduced (by someone in legitimate possession of a copy of it), so that there is a right to a thing with regard to it. On the other hand a book is also a mere discourse of the publisher to the public, which the publisher may not repeat publicly without having a mandate from the author to do so (praestatio operae), and this is a right against a person. The error consists in mistaking one of these rights for the other” (Kant, 1902, t.6, p.290). The corpus mysticum, **the work considered as an immaterial good, remains property of the author on behalf of the original right of its creation. The corpus mechanicum consists of the exemplars of the book or of the work of art. It becomes the property of whoever has bought the material object in which the work has been reproduced or expressed.** Seneca points out in De beneficiis (VII, 6) the difference between owning a thing and owning its use. He tells us that the bookseller Dorus had the habit of calling Cicero’s books his own, while there are people who claim books their own because they have written them and other people that do the same because they have bought them. Seneca concludes that the books can be correctly said to belong to both, for it is true they belong to both, but in a different way **The peculiarity of intellectual property consists thus first in being indeed a property, but property of an action; and second in being indeed inalienable, but also transferable in commission and license to a publisher. The bond the author has on his work confers him a moral right that is indeed a personal right. It is also a right to exploit economically his work in all possible ways, a right of economic use, which is a patrimonial right. Kant and Fichte argued that moral right and the right of economic use are strictly connected, and that the offense to one implies inevitably offense to the other.** In eighteenth-century Germany, the free use came into discussion among the presuppositions of a democratic renewal of state and society. In his Supplement to the Consideration of Publishing and Its Rights, Reimarus asked writers “instead of writing for the aristocracy, to write for the tiers état of the reader’s world.” (Reimarus, 1791b, p.595). **He saluted with enthusiasm the claim of disenfranchising from the monopoly of English publishers expressed in the American Act for the Encouragement of Learning of May 31, 1790. Kant, however, was firm in embracing intellectual property. Referring himself to Roman Law, he asked for its legislative formulation not only as patrimonial right, but also as a personal right.** In Of the Illegitimity of Pirate Publishing, he considered the moral faculties related to **intellectual property as an “inalienable right (ius personalissimum) always himself to speak through anyone else, the right, that is, that no one may deliver the same speech to the public other than in his (the author’s) name”** (Kant, 1902, t.8, p.85). Fichte went farther in the Demonstration of the Illegitimity of Pirate Publishing. **He saw intellectual property as a part of his metaphysical construction of intellectual activity, which was based on the principle that thoughts “are not transmitted hand to hand, they are not paid with shining cash, neither are they transmitted to us if we take home the book that contains them and put it into our library.** In order to make those thoughts our own an action is still missing: we must read the book, meditate – provided it is not completely trivial – on its content, consider it under different aspects and eventually accept it within our connections of ideas” (Fichte, 1964, t.I/1, p.411). At the center of the discussion was the practice of reprinting books in a pirate edition after having them reset word after words after an exemplar of the original edition. Given Germany’s division in a myriad of small states, the imperial privilege was ineffective against pirate publishing. Kant and Fichte spoke for the acceptance of the right to defend the work of an author by the usurpations of others so that he may receive a patrimonial advantage from those who utilize the work acquiring new knowledge and/or an aesthetic experience. In particular, Fichte declared the absolute primacy of the moral faculties within the corpus mysticum. He divided the latter into a formal and a material part. “This intellectual element must be divided anew into what is material, the content of the book, the thoughts it presents; and the form of these thoughts, the manner in which, the connection in which, the formulations and the words by means of which the book presents them” (Fichte, 1964, t.I/1, p.411). Fichte’s underlining the author’s exclusive right to the intellectual content of his book – “the appropriation of which through another is physically impossible” (ibid.) – brought him to the extreme of prohibiting any form of copy that is not meant for personal use. In Publishing Considered anew, Reimarus considered on the contrary copyright in its patrimonial aspects as a limitation to free trade: “What would not happen were a universal protection against pirate publishing guaranteed? Monopoly and safer sales certainly do not procure convenient price; on the contrary, they are at the origin of great abuses. The only condition for convenient price is free-trade, and one cannot help noticing that upon the appearance of a private edition, publishers are forced to substantially lower the price of a book” (Reimarus, 1791a, pp.402-3). Reimarus admitted of being unable to argue in terms of justice. Justice was of no bearing, he said, for whom, like himself, considered undemonstrated the author’s permanent property of his work (herein supported by the legislative vacuum of those years). What mattered, he said, was equity. In sum, Reimarus anticipated today’s stance on free use by referring to the principle that public interest on knowledge ought to prevail on the author’s interest and to balance the copyright. Moreover, Reimarus extended his argument beyond the realm of literary production to embrace, among others, the today vital issue of pharmaceutical production on patented receipts. “Let us suppose that at some place a detailed description for the preparation of a good medicine or of any other useful thing be published, why may not somebody who lives in places that are far away from that one copy it to use it for his own profit and but must instead ask the original publisher for the issue of each exemplar?” (Reimarus, 1791b, t.2, pp.584). To sum up, Reimarus’s stance does not seem respondent to rule of law. For in all dubious case the general rule ought to prevail, fighting intellectual property with anti-monopolistic arguments in favor of free trade brings with itself consequences that are not tranquilizing also for the ones that are expected to apply the law. **By resetting literary texts, one could obviously expurgate some errors. More frequently, however, some were added, given the exclusively commercial objectives of the reprints. The valid principle was, thus, that reprints were less precise than original editions, but they were much cheaper for the simple reason that the pirate publisher had a merely moral obligation against the author and the original publisher. In fact, he was not held to pay any honorarium to the author upon handling over the manuscript, nor to paying him royalties, nor to pay anything to the original publisher. The** only expense in charge of the pirate publisher was buying the exemplar of the original edition out of which he was to make, as we say today, a free use.

#### 2]The aff violates the categorical imperative and is non-universalizable- governments have a binding obligation to protect creations

**Van Dyke 18** Raymond Van Dyke, 7-17-2018, "The Categorical Imperative for Innovation and Patenting," IPWatchdog, <https://www.ipwatchdog.com/2018/07/17/categorical-imperative-innovation-patenting/id=99178/> SJ//DA recut SJKS

As we shall see, applying **Kantian logic entails first acknowledging some basic principles; that the people have a right to express themselves, that that expression (the fruits of their labor) has value and is theirs (unless consent is given otherwise), and that government is obligated to protect people and their property. Thus, an inventor or creator has a right in their own creation, which cannot be taken from them without their consent.** So, employing this canon, **a proposed Categorical Imperative (CI) is the following Statement: creators should be protected against the unlawful taking of their creation by others. Applying this Statement to everyone, i.e., does the Statement hold water if everyone does this, leads to a yes determination. Whether a child, a book or a prototype, creations of all sorts should be protected, and this CI stands.** This result also dovetails with the purpose of government: to protect the people and their possessions by providing laws to that effect, whether for the protection of tangible or intangible things. **However, a contrary proposal can be postulated: everyone should be able to use the creations of another without charge. Can this Statement rise to the level of a CI? This proposal, upon analysis would also lead to chaos. Hollywood, for example, unable to protect their films, television shows or any content, would either be out of business or have robust encryption and other trade secret protections, which would seriously undermine content distribution and consumer enjoyment.** Likewise, inventors, unable to license or sell their innovations or make any money to cover R&D, would not bother to invent or also resort to strong trade secret. Why even create? This approach thus undermines and greatly hinders the distribution of ideas in a free society, which is contrary to the paradigm of the U.S. patent and copyright systems, which promotes dissemination. By allowing freeriding, innovation and creativity would be thwarted (or at least not encouraged) and trade secret protection would become the mainstay for society with the heightened distrust.

## Case

### Adv 1

#### Dedev solves pandemics – 1] solves their environment scenario 2] massively outweighs on timeframe

#### Disease internal link is super small – their Dreyfus evidence talks about the governments hiding covid stats, which the 1ac doesn’t solve

#### Status quo still allows for whistleblowing – their 1ac ev just says that whistleblowing has a hurdle, but clearly it happens in the squo as per your solvency evidence so there’s no link differential.

#### Removing trade secrets decks medicine innovation.

Sanderson and Zhuang 16 [Andy and Ling; Senior associate at Potter Clarkson and Assistant at Potter Clarkson; “The value of secrecy for big pharma,” Isipr; 6/23/16; <https://www.lifesciencesipreview.com/contributed-article/the-value-of-secrecy-for-big-pharma>] Justin

The importance of trade secrets in the life science industry is becoming increasingly relevant in the US, where recent changes to guidelines for examination at the US Patent and Trademark Office have applied increasingly severe limitations on the patentability of natural products and methods using laws of nature.

In 2012, the US Supreme Court, in Mayo v Prometheus, declared that Prometheus’s patents related to the application of natural laws (namely, the metabolism of a drug) and therefore were not patent-eligible subject matter under US patent law. Similarly in 2013, the Supreme Court decided in Association for Molecular Pathology v Myriad Genetics that the isolated BRCA1 and BRCA2 genes, which formed the basis of Myriad’s patents, were merely products of nature.

These judgments created enormous legal uncertainty on whether diagnostics, genetic or drug screening methods are considered patentable subject matter. As a consequence, many biotech companies are vulnerable to exposing their inventions to competitors while being unable to seek adequate patent protection. Until the guidelines on patentability become more lenient towards the biotech industry, companies in the field of diagnostics may favour trade secrets over patent protection.

Patents have historically provided strong protection for a new composition, such as a new active pharmaceutical ingredient or a new molecular marker. However, as discussed, innovation in pharma and biotech industries also heavily relies on the protection of IP assets not otherwise covered by patent protection. Moreover, advancements in genomics and proteomics mean that many biological molecules are already disclosed to the public, and combined with the growing limitations on patentability in the US, are creating obstacles to claiming exclusive rights over the use of those compounds.

Indeed, companies which focus on developing a few blockbuster drugs for a select number of indications would clearly benefit from patent protection, whereas companies looking to develop diagnostics, personalised therapeutic regimes and the like could also benefit from ‘black box’ models, in which aspects of the invention are kept secret.

#### Specifically, manufacturing devices – critical to solving shortages.

Breitenstein 18 [Guy; “Trade Secrets,” Medical Devices Community; 12/17/18; <https://medicaldevicescommunity.com/md_news/trade-secrets-the-alternative-way-of-protecting-innovative-work-in-the-medical-devices-industry/>] Justin

One of the biggest challenges for companies in the medical devices industry is to protect their innovative work. These innovations relate to all aspects of medical devices, all the way from the chemistry to the device design to the software. Innovations are often the result of years of research and development and represent a significant investment. They fuel the growth of your business and provide you with a competitive advantage. Innovations certainly deserve solid protection measures.

Traditionally this protection is achieved through the filing of patents. However, patents are expensive to obtain and even more expensive to maintain. Besides, some inventions cannot be patented for technical reasons. If your business is unable or unwilling to file for a patent to prevent others from using its latest invention, why not simply keep the invention secret? If competitors are unaware of the invention, they cannot copy or retro engineer it. How can your business achieve this protection by secrecy?

Trade secrets defined

This is where the European legislator came to the rescue by creating a baseline minimum level of protection which every EU member state must institute. The EU Directive on the protection of undisclosed know-how and business information (trade secrets) sets out a uniform definition: a piece of information is a trade secret, if it is not generally known among persons in the medical devices industry – or readily accessible to them. Thanks to the broad definition of the Trade Secrets Directive, a lot of information could benefit from the trade secrets protection. The typical examples are manufacturing processes or techniques, product formulas, ingredients and recipes, assays, names of vendors and suppliers, and unique combinations of generally known concepts. More specifically in the medical devices industry, trade secrets may relate to patient data, proprietary laser cutting techniques for stents, catheters, implants, other devices, hospital customer lists, physician information, and software for healthcare wearables. Reasonable protection measures Under the Trade Secrets Directive, the simple fact that a piece of information is secret is not enough to benefit from the trade secrets protection. Your business must also put in place, reasonable measures to keep the information secret. What constitutes a reasonable protection measure? This depends on the relevant circumstances, for instance: the size of your business, the resources available and the impact of security measures on the activities of your business. These are circumstances to consider, when determining whether your protection measures are reasonable. Another aspect to be taken into consideration when deciding on your protection measures is: Who are the threat actors? Who is likely to misappropriate your trade secrets? The first example that comes to mind is competitors. However, a recent evaluation of current trade secret misappropriation cases estimated that in at least 90% of cases, at least one of the accused individuals was known to the owner of the trade secret and that in as many as 40% of those cases, the accused included a business partner. The medical devices industry relies on dense interconnections of commercial partnerships, collaborations, joint ventures, and outsourcing agreements. Your trade secrets protection measures should take this into account when setting up and operating these agreements with commercial partners. The other threat actors may be your own employees. There is a clear upward trend in the number of litigation (and damages awards) where employees misappropriated the trade secrets of their employer. These days it is very easy for an employee to copy confidential information on a flash drive and take it to the competition. Protecting trade secrets in practice The very first step in putting in place protection measures is to perform an audit of your trade secrets portfolio: What are they? Where are they kept? What is their value (how much time and expense did you incur in developing them)? What competitive advantage do they procure to your business? These are some of the questions to be raised with your R&D, IP, finance and sales departments. And do not forget to talk to your regulatory professionals: They are often ideally placed to help your scientists in the identification of your trade secrets. Once your trade secrets are identified, the next step should be for your management to put in place appropriate policies and procedures to protect them. By way of example: Stamp documents and drawings CONFIDENTIAL or PROPRIETARY or SECRET. Enter into confidentiality agreements with all employees and any third parties who may receive trade secrets, including partners, vendors and suppliers. Train your employees on the importance of maintaining trade secrets confidentiality. Institute sensible security precautions, both physical (physical barriers, alarmed doors, employee access cards, visitor control systems) and electronic (data encryption, authentication and access code). Maintain access to trade secrets on a need-to-know basis only. Enforce a clean desk policy to ensure that confidential documents are not left unattended. Control copying and reproduction of sensitive documents. Conduct an exit interview with departing employees.

The benefits of trade secrets

Whereas patents involve a lengthy (and costly) application process, trade secrets arise automatically. They have an immediate effect. There is no requirement to register them. The cost of maintaining trade secrets is also significantly lower than for patents.

There are no formalities to be observed for trade secrets and, most importantly, no public disclosure. By keeping your trade secrets close to your chest, your competitors are forced to solve problems without having access to your proprietary methods.

Also, as indicated above, some inventions are not patentable. Trade secrets are then the only protection available. For example, a medical devices company’s trade secrets can include detailed manufacturing steps that are not individually patentable. Even if the information is only of small value in isolation, if in combination with other secrets, it could create a significant improvement in your manufacturing process and be worthy of protection. A good strategy may also be to combine patent protection for some elements of your manufacturing process and trade secrets protection for elements that are not patentable (or for elements of such a small value that they are not worth the cost of a patent application).

Finally, patent protection is limited in time. When the patent expires, it falls into the public domain and since you disclosed it, your competitors will get a free ride to piggy back on your hard-earned innovations. Trade secrets protection is not limited in time. They may be protected forever and help you keeping ahead of competition. The typical example is the Coca-Cola formula invented in the late 19th century!

#### Otherwise, the aff causes a scramble from inexperienced companies that waste resources – turns case.

Breuninger 21 [Kevin; Specialist at CNBC; “Pfizer CEO opposes U.S. call to waive Covid vaccine patents, cites manufacturing and safety issues,” CNBC; 5/7/21; <https://www.cnbc.com/2021/05/07/pfizer-ceo-biden-backed-covid-vaccine-patent-waiver-will-cause-problems.html>] Justin

“Currently, infrastructure is not the bottleneck for us manufacturing faster,” Bourla wrote in a dear colleague letter posted on LinkedIn. “The restriction is the scarcity of highly specialized raw materials needed to produce our vaccine.”

Pfizer’s vaccine requires 280 different materials and components that are sourced from 19 countries around the world, Bourla said. He contended that without patent protections, entities with much less experienced than Pfizer at manufacturing vaccines will start competing for the same ingredients.

“Right now, virtually every single gram of raw material produced is shipped immediately into our manufacturing facilities and is converted immediately and reliably to vaccines that are shipped immediately around the world,” Bourla wrote.

He predicted that the proposed waiver “threatens to disrupt the flow of raw materials.”

“It will unleash a scramble for the critical inputs we require in order to make a safe and effective vaccine,” Bourla wrote.

“Entities with little or no experience in manufacturing vaccines are likely to chase the very raw materials we require to scale our production, putting the safety and security of all at risk,” the CEO wrote.

### Dedev

#### Downturn won’t cause war – prefer post-COVID evidence

Walt 5/13 (Stephen M. Walt is the Robert and Renée Belfer professor of international relations at Harvard University; 5/13/20; "Will a Global Depression Trigger Another World War?"; *Foreign Policy*; https://foreignpolicy.com/2020/05/13/coronavirus-pandemic-depression-economy-world-war/)

One familiar argument is the so-called diversionary (or “scapegoat”) theory of war. It suggests that leaders who are worried about their popularity at home will try to divert attention from their failures by provoking a crisis with a foreign power and maybe even using force against it. Drawing on this logic, some Americans now worry that President Donald Trump will decide to attack a country like Iran or Venezuela in the run-up to the presidential election and especially if he thinks he’s likely to lose. This outcome strikes me as unlikely, even if one ignores the logical and empirical flaws in the theory itself. War is always a gamble, and should things go badly—even a little bit—it would hammer the last nail in the coffin of Trump’s declining fortunes. Moreover, none of the countries Trump might consider going after pose an imminent threat to U.S. security, and even his staunchest supporters may wonder why he is wasting time and money going after Iran or Venezuela at a moment when thousands of Americans are dying preventable deaths at home. Even a successful military action won’t put Americans back to work, create the sort of testing-and-tracing regime that competent governments around the world have been able to implement already, or hasten the development of a vaccine. The same logic is likely to guide the decisions of other world leaders too. Another familiar folk theory is “military Keynesianism.” War generates a lot of economic demand, and it can sometimes lift depressed economies out of the doldrums and back toward prosperity and full employment. The obvious case in point here is World War II, which did help the U.S economy finally escape the quicksand of the Great Depression. Those who are convinced that great powers go to war primarily to keep Big Business (or the arms industry) happy are naturally drawn to this sort of argument, and they might worry that governments looking at bleak economic forecasts will try to restart their economies through some sort of military adventure. I doubt it. It takes a really big war to generate a significant stimulus, and it is hard to imagine any country launching a large-scale war—with all its attendant risks—at a moment when debt levels are already soaring. More importantly, there are lots of easier and more direct ways to stimulate the economy—infrastructure spending, unemployment insurance, even “helicopter payments”—and launching a war has to be one of the least efficient methods available. The threat of war usually spooks investors too, which any politician with their eye on the stock market would be loath to do. Economic downturns can encourage war in some special circumstances, especially when a war would enable a country facing severe hardships to capture something of immediate and significant value. Saddam Hussein’s decision to seize Kuwait in 1990 fits this model perfectly: The Iraqi economy was in terrible shape after its long war with Iran; unemployment was threatening Saddam’s domestic position; Kuwait’s vast oil riches were a considerable prize; and seizing the lightly armed emirate was exceedingly easy to do. Iraq also owed Kuwait a lot of money, and a hostile takeover by Baghdad would wipe those debts off the books overnight. In this case, Iraq’s parlous economic condition clearly made war more likely. Yet I cannot think of any country in similar circumstances today. Now is hardly the time for Russia to try to grab more of Ukraine—if it even wanted to—or for China to make a play for Taiwan, because the costs of doing so would clearly outweigh the economic benefits. Even conquering an oil-rich country—the sort of greedy acquisitiveness that Trump occasionally hints at—doesn’t look attractive when there’s a vast glut on the market. I might be worried if some weak and defenseless country somehow came to possess the entire global stock of a successful coronavirus vaccine, but that scenario is not even remotely possible. If one takes a longer-term perspective, however, a sustained economic depression could make war more likely by strengthening fascist or xenophobic political movements, fueling protectionism and hypernationalism, and making it more difficult for countries to reach mutually acceptable bargains with each other. The history of the 1930s shows where such trends can lead, although the economic effects of the Depression are hardly the only reason world politics took such a deadly turn in the 1930s. Nationalism, xenophobia, and authoritarian rule were making a comeback well before COVID-19 struck, but the economic misery now occurring in every corner of the world could intensify these trends and leave us in a more war-prone condition when fear of the virus has diminished. On balance, however, I do not think that even the extraordinary economic conditions we are witnessing today are going to have much impact on the likelihood of war. Why? First of all, if depressions were a powerful cause of war, there would be a lot more of the latter. To take one example, the United States has suffered 40 or more recessions since the country was founded, yet it has fought perhaps 20 interstate wars, most of them unrelated to the state of the economy . To paraphrase the economist Paul Samuelson’s famous quip about the stock market, if recessions were a powerful cause of war, they would have predicted “nine out of the last five (or fewer).” Second, states do not start wars unless they believe they will win a quick and relatively cheap victory. As John Mearsheimer showed in his classic book Conventional Deterrence, national leaders avoid war when they are convinced it will be long, bloody, costly, and uncertain. To choose war, political leaders have to convince themselves they can either win a quick, cheap, and decisive victory or achieve some limited objective at low cost. Europe went to war in 1914 with each side believing it would win a rapid and easy victory, and Nazi Germany developed the strategy of blitzkrieg in order to subdue its foes as quickly and cheaply as possible. Iraq attacked Iran in 1980 because Saddam believed the Islamic Republic was in disarray and would be easy to defeat, and George W. Bush invaded Iraq in 2003 convinced the war would be short, successful, and pay for itself.The fact that each of these leaders miscalculated badly does not alter the main point: No matter what a country’s economic condition might be, its leaders will not go to war unless they think they can do so quickly, cheaply, and with a reasonable probability of success. Third, and most important, the primary motivation for most wars is the desire for security, not economic gain. For this reason, the odds of war increase when states believe the long-term balance of power may be shifting against them, when they are convinced that adversaries are unalterably hostile and cannot be accommodated, and when they are confident they can reverse the unfavorable trends and establish a secure position if they act now. The historian A.J.P. Taylor once observed that “every war between Great Powers [between 1848 and 1918] … started as a preventive war, not as a war of conquest,” and that remains true of most wars fought since then. The bottom line: Economic conditions (i.e., a depression) may affect the broader political environment in which decisions for war or peace are made, but they are only one factor among many and rarely the most significant. Even if the COVID-19 pandemic has large, lasting, and negative effects on the world economy—as seems quite likely—it is not likely to affect the probability of war very much, especially in the short term. To be sure, I can’t rule out another powerful cause of war—stupidity—especially when it is so much in evidence in some quarters these days. So there is no guarantee that we won’t see misguided leaders stumbling into another foolish bloodletting. But given that it’s hard to find any rays of sunshine at this particular moment in history, I’m going to hope I’m right about this one

#### COVID dramatically lowers the risk of war.

Walt ‘5/13 (Stephen M. Walt is the Robert and Renée Belfer professor of international relations at Harvard University; 5/13/20; "Will a Global Depression Trigger Another World War?"; *Foreign Policy*; https://foreignpolicy.com/2020/05/13/coronavirus-pandemic-depression-economy-world-war/)

But war could still be much less likely. The Massachusetts Institute of Technology’s Barry Posen has already considered the likely impact of the current pandemic on the probability of war, and he believes COVID-19 is more likely to promote peace instead. He argues that the current pandemic is affecting all the major powers adversely, which means it isn’t creating tempting windows of opportunity for unaffected states while leaving others weaker and therefore vulnerable. Instead, it is making all governments more pessimistic about their short- to medium-term prospects. Because states often go to war out of sense of overconfidence (however misplaced it sometimes turns out to be), pandemic-induced pessimism should be conducive to peace. Moreover, by its very nature war requires states to assemble lots of people in close proximity—at training camps, military bases, mobilization areas, ships at sea, etc.—and that’s not something you want to do in the middle of a pandemic. For the moment at least, beleaguered governments of all types are focusing on convincing their citizens they are doing everything in their power to protect the public from the disease. Taken together, these considerations might explain why even an impulsive and headstrong warmaker like Saudi Arabia’s Mohammed bin Salman has gotten more interested in winding down his brutal and unsuccessful military campaign in Yemen. Posen adds that COVID-19 is also likely to reduce international trade in the short to medium term. Those who believe economic interdependence is a powerful barrier to war might be alarmed by this development, but he points out that trade issues have been a source of considerable friction in recent years—especially between the United States and China—and a degree of decoupling might reduce tensions somewhat and cause the odds of war to recede. For these reasons, the pandemic itself may be conducive to peace. But what about the relationship between broader economic conditions and the likelihood of war? Might a few leaders still convince themselves that provoking a crisis and going to war could still advance either long-term national interests or their own political fortunes? Are the other paths by which a deep and sustained economic downturn might make serious global conflict more likely?

#### Massively outweighs on specificity – their evidence assumes some communist revolution in china and mid-east draw in, but that is literally not possible during a pandemic

#### Isolated island populations repopulate Earth after radiation and nuclear winter – bunkers and submarines expand the likelihood of survival

Turchin and Green 18 (Alexey Turchin – Scientist for the Foundation Science for Life Extension in Moscow, Russia, Founder of Digital Immortality Now, author of several books and articles on the topics of existential risks and life extension. Brian Patrick Green – Director of technology ethics at the Markkula Center for Applied Ethics, teaches AI ethics in the Graduate School of Engineering at Santa Clara University. <MKIM> “Islands as refuges for surviving global catastrophes”. September 2018. DOA: 7/20/19. https://www.emerald.com/insight/content/doi/10.1108/FS-04-2018-0031/full/html?fullSc=1&mbSc=1&fullSc=1)

Different types of possible catastrophes suggest different scenarios for how survival could happen on an island. What is important is that the island should have properties which protect against the specific dangers of particular global catastrophic risks. Specifically, different islands will provide protection against different risks, and their natural diversity will contribute to a higher total level of protection: **Quarantined island survives pandemic** . An island could impose effective quarantine if it is sufficiently remote and simultaneously able to protect itself, possibly using military ships and air defense. **Far northern aboriginal people survive an ice age**. Many far northern people have adapted to survive in extremely cold and dangerous environments, and under the right circumstances could potentially survive the return of an ice age. However, their cultures are endangered by globalization. If these people become dependent on the products of modern civilization, such as rifles and motor boats, and lose their native survival skills, then their likelihood of surviving the collapse of the outside world would decrease. Therefore, preservation of their survival skills may be important as a defense against the risks connected with **extreme cooling**. Remote polar island with high mountains survives brief global warming of median surface temperatures, up to 50˚C. There is a theory that the climates of planets similar to the Earth could have several semi-stable temperature levels (Popp et al., 2016). If so, because of climate change, the Earth could transition to a second semi-stable state with a median global temperature of around 330 K, about 60˚C, or about 45˚C above current global mean temperatures. But even in this climate, **some regions of Earth could still be survivable for humans**, such as the Himalayan plateau at elevations above 4,000 m, but below 6,000 (where oxygen deficiency becomes a problem), or on polar islands with mountains (however, global warming affects polar regions more than equatorial regions, and northern island will experience more effects of climate change, including thawing permafrost and possible landslides because of wetter weather). In the tropics, the combination of increased humidity and temperature may increase the wet bulb temperature above 36˚C, especially on islands, where sea moisture is readily available. In such conditions, proper human perspiration becomes impossible (Sherwood and Huber, 2010), and there will likely be increased mortality and morbidity because of tropical diseases. If temperatures later returned to normal – either naturally or through climate engineering – **the rest of the Earth could be repopulated**. ‘‘Swiss Family Robinsons’’ survive on a tropical island, unnoticed by a military robot ‘‘mutiny’’. Most AI researchers ignore medium-term AI risks, which are neither near-term risks, like unemployment, nor remote risks, like AI superintelligence. But a large drone army – if one were produced – could receive a wrong command or be infected by a computer virus, leading it to attack people indiscriminately. Remote islands without robots could provide protection in this case, allowing survival until such a drone army ran out of batteries, fuel, ammunition or other supplies: Primitive tribe survives civilizational collapse. The inhabitants of **North Sentinel Island**, near the Andaman Islands in the Indian Ocean, are hostile and uncontacted. **The Sentinelese survived the 2004 Indian Ocean tsunami apparently unaffected** (Voanews, 2009), and if the rest of humanity disappear, **they might well continue their existence without change.** Tropical Island survives extreme global nuclear winter and glaciation event. Were a **nuclear**, bolide impactor or volcanic “**winter**” scenario to unfold, these islands would remain surrounded by Warm Ocean, and local volcanism or other energy sources might provide heat, energy and food. Such island refuges may have helped life on Earth survive during the **“Snowball Earth”** event in Earth’s distant past (Hoffman et al., 1998). Remote island base for project “Yellow submarine”. Some catastrophic risks such as a gamma ray burst, a global nuclear war with high radiological contamination or multiple pandemics might be best survived **underwater in nuclear submarines** (Turchin and Green, 2017). However, after a catastrophe, the submarine with survivors would eventually need a place to dock, and an island with some prepared amenities would be a reasonable starting point for rebuilding civilization. Bunker on remote island. For risks which include multiple or complex catastrophes, such as a bolide impact, extreme volcanism, tsunamis, multiple pandemics and nuclear war with radiological contamination, **island refuges could be strengthened with bunkers**. Richard Branson survived hurricane Irma on his own island in 2017 by seeking refuge in his concrete wine cellar (Clifford, 2017). Bunkers on islands would have higher survivability compared to those close to population centers, as they will be neither a military target nor as accessible to looters or unintentionally dangerous (e.g. infected) refugees. These bunkers could potentially be connected to water sources by underwater pipes, and passages could provide cooling, access and even oxygen and food sources

#### Growth’s bad and unsustainable:

#### 1] Global cognitive collapse – extinction.

Annunziata and McManus **’**1-11—former Chief Economist and Head of Business Innovation Strategy at General Electric AND Visiting Research Fellow at Autodesk, Senior Advisor at BCG (Marco and Mickey, “The Great Cognitive Depression,” <https://www.forbes.com/sites/marcoannunziata/2019/01/11/the-great-cognitive-depression/#49ed9dc174c1>, dml)

We have seen a dramatic increase in the amount of complexity that exists in the world. Mickey McManus’s book Trillions noted that as early as 2010, the semiconductor industry had reached the point where they were making more transistors than grains of rice, cheaper. Connectivity has amplified the global amount of aggregate complexity by enabling it to break out of any given domain and spread across the world. The rise of the so called “Internet of Things”—starting with mobile devices and now connected products and vehicles and platforms—is flooding every corner of our homes, factories, and communities. Everything becomes connected—to everything else and to us. The global economy has also become inextricably interconnected; our society is more and more interdependent. Across multiple fields, our knowledge gets deeper and more detailed; we solve old problems and create new ones at accelerating speed. No matter our walk of life, today we are asked to grasp a widening range of increasingly complex issues: climate change, energy policy, advances in health care, the likely impact of robotics and Artificial Intelligence. All these new sources of complexity are increasing the frequency and amplitude of positive and negative feedback loops into crashing waves and a torrential flood. There are no signs of this complexity leveling out, quite the opposite—the waves are getting more erratic and larger and larger. We are standing on the shores of a trillion-node-network tsunami-like event that has never been seen before. Worse this isn’t just a rise of passive information, but also a deluge of active machine agents. When trillions of things not only collect billions of bits of information but also demand our attention and change our environments dynamically on the fly, our ability to think, make decisions and take actions may be on the verge of collapse. The coming together of digital and physical technologies has turned business models upside down and made it even harder for economic analysis to keep up. The “prosumer” concept of the 1980s is back with a vengeance as new technologies allow households to produce electricity and sell it back into the grid, and give them access to manufacturing power with affordable 3D printers. Economists struggle to explain the collapse in productivity that accompanied the latest surge in innovations—and that shows compelling inverse correlation to the rise of connected (and cognitive) devices like mobile phones; their cacophony of explanations ranges from the charge that new digital innovations have no economic value to the claim that they create massive value delivered for free, and hence not recorded in the official statistics. Our ability to think and make smart decisions is eroding just as our environment gets more complex and harder to grasp with our traditional tools. Stone age tools for cognitive age challenges? But wait, this is not the first time we face a rise in complexity and have to contend with multiple disruptions. We’ve faced tough challenges before and built structures to allow us to manage and make decisions at vast scales. Corporations, cities, markets, and governments are all technologies we’ve devised to manage complexity and make rational and actionable decisions in a hostile world. Steven Johnson—in his new book Farsighted—points out that we’ve evolved decision and scenario sciences to cope with increasingly complex issues—from the era of Darwin when he used the simple “pro/con” list to decide if he should get married (a non-trivial decision) to today’s advanced scenario-planning war games, science fiction foresight tools and other scalable management techniques. This time, however, seems different—for a troubling simple reason. This time we face the rise of powerful new forces that undermine our very ability to react to these challenges and disruptions: our cognition itself is under attack. These toxic new forces leverage digital technology to exploit our behavioral biases, pushed by powerful financial incentives. The early warning signs What if the structures we had built to protect us against irrational decisions turn out to be rickety breakwaters laid down on the shore of a once placid sea and provide no protection from a 100-year flood? When the art and science of decisions-making itself collapses might we face a Great Cognitive Depression? The early warning signs are troubling to say the least. Authoritarian governments and despots are enjoying a resurgence. In many democracies, voters faced with complex issues turn to simple answers and slogans, to the siren call of populism. They dismiss the experts (think of Brexit as a case in point), they look for scapegoats and easy fixes. Could these be examples of human cognition reverting to evolutionary shortcuts to cope with complex threats? Authority bias is a quick way for us to decide things when we are faced with tough choices. If something is too ambiguous or non-deterministic we follow the authority figure with the most compelling and simple story, instead of doing the thinking for ourselves. Social scientists have documented upwards of 200+ cognitive short cuts and biases that evolved to help us cope with danger, make decisions fast, and conserve our precious cognitive resources to fight another day. But sometimes those shortcuts have lived on far past their “sell by” date. Sometimes our brains lie to us. Buying behavior in our simian ancestors seem oddly similar to the ways humans make choices in markets. We believe we are rational actors but time and again we find out that it is very hard to see the thinking about our thinking. And now it’s getting harder. Here is where we find a dangerous market failure. A powerful combination of new technologies and financial incentives is fast overwhelming our old protective barriers. Digital innovations are creating value. But this value is not given away for free, as some economists contend. There is no free lunch. We all know that digital platforms are after our data. Sometimes they use it to our advantage, with more personalized offerings; often they sell it to advertisers. For them we are a different kind of “prosumer”: not a producer-consumer, but rather a product-consumer. We are more a commodity than a true customer. You might argue that well, almost everyone realizes this, and we still enter these transactions of our own free will, so what’s the problem? But digital platforms are not just after our data—they crave our unwavering attention. Higher ratings command higher advertising rates—and the ratings are determined by how much time we spend with our eyeballs glued to the screen, our attention absorbed by the apps. Therefore, these platforms have a financial incentive to hold our attention, and to grab it back whenever it drifts away—a powerful financial incentive. Hence the game of incessant notifications, of addictive updates on likes and shares, of instigations to chase followers, friends and connections. See, the fact that digital platforms grab our data in exchange for their “free” services strikes us as a lesser distortion. The digital platform, be it Google, Amazon, Twitter or Facebook, most likely gets more value from my individual data than it gives back to me in services. But the truth is, my data is much less valuable to me than it is to them, because they can aggregate it with others’, whereas I cannot. And unless I find a way to get together with millions of other users, in a sort of modern trade union of the digital sheep, I will never have enough bargaining power to extract more of that value. Because as long as everybody else gives their data away, the marginal value of my data is close to zero. But as I said, my data is of little value to me, in isolation. Little ventured, little lost in this case. Cognition is another matter. Our attention, our cognition, is a very precious resource. We need it to study, to work, to run our daily lives, to take small and big and life-changing decisions. And it’s a limited resource. We can fool ourselves that we can multitask. That we have become a lot more productive as we track our Twitter feed and social media messages while we work, answer emails during conference calls. Except that we can’t and we don’t. We become less productive, not more. The statistics—as we discussed earlier—bear this out. It should be no surprise. In this more complex world, we have a lot to study and understand—and we cannot do it in 20-seconds bursts. When we get distracted, we need over 20 minutes to refocus on the task at hand. In this more complex and high-tech world, knowledge and understanding have enormous value. The time and cognition we invest in acquiring knowledge, mastering skills, earning credentials, yields a very high rate of return in terms of career opportunities, earnings, and personal fulfillment. Which means that the opportunity cost of every minute we spend looking at a digital ad, “catching up” on various messaging platforms, or watching a viral video is extremely high. And the digital drugs we take on a daily basis not only absorb precious time today—they also erode our ability to concentrate. By pushing us to an obsessive-compulsive habit of constantly checking for something new online, they gradually destroy our slow-thinking ability.

#### 2] Resources are finite – ensures collapse by 2050.

Giorgos **Kallis 18**, ICREA Research Professor at Universitat Autònoma de Barcelona, environmental scientist working on ecological economics and political ecology, formerly Marie Curie International Fellow at the Energy and Resources Group of the University of California at Berkeley, PhD in Environmental Policy and Planning from the University of the Aegean in Greece, et al., 5/31/18, “Annual Review of Environment and Resources: Research On Degrowth,” Annual Review of Environment and Resources, Vol. 43, p. 296-298

3. ECOLOGICAL ECONOMICS: THE LIMITS OF GREEN GROWTH¶ Although driven by political, institutional, and discursive processes, growth is also biophysical. The economic process converts energy, resources, and matter to goods, services, and waste (34). In theory, it seems possible to decouple material throughput from economic output by improving the resource efficiency of production. Ecological economists, however, argue that in practice absolute decoupling is unlikely, even though relative decoupling is common (34). Efficiency should not be confused with scale (35): The more efficiently we use resources, the lower they cost, and the more of them we end up using (36). This is, in essence, growth. Just as increases in labor productivity lead to growth and new jobs, not to less employment, increases in resource productivity increase output and resource use (37). Capitalist economies grow by using more resources and more people, more intensively. Accelerating this is unlikely to spare resources.¶ Growth can become “cleaner” or “greener” by substituting, for example, fossil fuels with solar power, or scarce, environmentally intensive metals with more abundant and less intensive metals. But new substitutes have resource requirements, and life-cycle impacts that cross space and time. Energy is a vital source of useful work (38); growth has been possible because fossil fuels did things human labor alone could not do. Ending the use of fossil fuels is likely to reduce labor productivity and limit output (34). Solar and wind power are constrained only by their rate of flow, but unlike fossil fuels, they are diffuse—more like rain than a lake (3). To collect and concentrate a diffuse flow of energy, more energy is necessary and more land is required. The EROIs (energy returns on energy investment) of renewable energies are between 10:1 and 20:1, compared to more than 50:1 for earlier deposits of oil and coal (39). An economy powered by a diffuse energy flow is then likely to be an economy of lower net energy and lower output than one powered by concentrated stocks (3). Land use for solar or wind also competes with the use of land for food production, and rare materials are necessary for infrastructures and batteries that store their intermittent flows, with significant environmental effects.¶ Historical data corroborate ecological economic theory (40). Ayres & Warr (38) find that the use of net energy after conversion losses explains a big portion of the United States’ total factor productivity and economic growth. At the global level, GDP and material use have increased approximately 1:1. Carbon emissions have increased somewhat slower than GDP, but still have increased (34). This is unlikely to be a coincidence. Exceptions may exist, but cross-panel data analysis shows that overall, 1% growth of a national economy is associated with 0.6% to 0.8% increase in its carbon emissions (41) and 0.8% growth in its resource use (42). ¶ Global resource use follows currently the “collapse by 2050” scenario foreseen in the “Limits to Growth” 1971 report (43–45). Domestic material use in some developed OECD economies has reached a plateau, but this is because of globalization and trade. If we take into account imported goods, then the material requirements of products and services consumed in OECD countries have grown hand in hand with GDP, with no decoupling (46). For water use, the effects of growth overwhelm any realistic savings from technologies and efficiency (47); water footprints have increased even in regions such as California where water withdrawals were stabilized (40). ¶ Carbon emissions in some EU (European Union) countries have been declining, even after trade is taken into account, suggesting some substitution of fossil fuels by cleaner energies. [Although recession also played a role (34).] These declines are nowhere near the 8–10%, year-after-year reductions in carbon emissions required

#### 3] Chemical emissions – extinction.

JulianCribb 17, principal of JCA, Fellow of the Australian Academy of Technological Sciences and Engineering, former Director, National Awareness, CSIRO, “The Poisoner,” Surviving the 21st Century Chapter 6

There are two essential points about the Earthwide chemical flood. First it is quite new. It began with the industrial revolution of the late nineteenth century, but expanded dramatically in the wake of the two world wars—where chemicals were extensively used in munitions—and has exploded in deadly earnest in the past 50 years, attaining a new crescendo in the early twenty-first century. It is something our ancestors never faced—and to which we, in consequence, lack any protective adaptations which might otherwise have evolved due to constant exposure to poisons. Second, the toxic flood is, for the most part, preventable. It is not compulsory—but is an unwanted by-product of economic growth. Though driven by powerful industries and interests, it still lies within the powers and rights of citizens, consumers and their governments to demand it be curtailed or ended and to encourage industry to safer, healthier products and production systems. The issue is whether, or not, a wise humanity would choose to continue poisoning our children, ourselves and our world. Regulatory Failure Despite the fact that around 2000 new chemicals are released onto world markets annually, most have not received proper health, safety or environmental screening—especially in terms of their impact on babies and small children. Regulation has so far failed to make any serious curtailment of this flood: only 21 out of 144,000 known chemicals have been banned internationally, and this has not eliminated their use. At such a rate of progress it will take us more than 50,000 years to identify and prohibit or restrict all the chemicals which do us harm. Even then, bans will only apply in a handful of well-regulated countries, and will not protect the Earth system nor humanity at large. Clearly, national regulation holds few answers to what is now an out-of-control global problem. Furthermore, the chemical industry is relocating from the developed world (where it is quite well regulated and observes its own ethical standards) and into developing countries, mainly in Asia, where it is largely beyond the reach of either ethics or the law. However, its toxic emissions return to citizens in well-regulated countries via wind, water, food, wildlife, consumer goods, industrial products and people. The bottom line is that it doesn’t matter how good your country’s regulations are: you and your family are still exposed to a growing global flood of toxins from which even a careful diet and sensible consumer choices cannot fully protect you. The wake-up call to the world about the risks of chemical contamination was issued by American biologist Rachel Carson when she published Silent Spring in 1962, in which she warned specifically about the impact of certain persistent pesticides used in agriculture. Since her book came out, the volume of pesticide use worldwide has increased 30-fold, to around four million tonnes a year in the mid-2010s. Since the modern chemical age began there has been a string of high-profile chemical disasters: Minamata, the Love Canal, Seveso, Bhopal, Flixborough, Oppau, Toulouse, Hinkley, Texas City, Jilin, Tianjin. Most of these display a familiar pattern of unproductive confrontation between angry citizens, industry and regulators, involving drawn-out legal battles that deliver justice to nobody. By their spectacular and local nature, such events serve to distract from the far larger, more insidious and ubiquitous, universal toxic flood. Chemists and chemical makers often claim that their products are ‘safe’ because individual exposure (e.g. in a given product, like a serve of food) is too low to result in a toxic dose, a theory first put forward by the mediaeval scholar Paracelsus in the sixteenth century. This ‘dose related’ argument is disingenuous, if not dishonest—as modern chemists well know—for the following reasons: Most chemicals target a receptor or receptors on certain of your body cells, to cause harm. There may be not one, but hundreds or even thousands of different chemicals all targeting the same receptor, so a particular substance may contribute an unknowable fraction to an overall toxic dose. That does not make it ‘safe’. Chemicals not known to be poisonous in small doses on their own can combine with other substances in water, air, food or your body to create a toxin. No manufacturer can truthfully assert this will not happen to their products. Chemical toxicity is a function of both dose and the length of time you are exposed to it. In the case of persistent chemicals and heavy metals, this exposure may occur over days, months, years, even a lifetime in some cases. Tiny doses may thus accumulate into toxic ones. Most chemical toxicity is still measured on the basis of an exposed adult male. Babies and children being smaller and using much more water, food and air for their bodyweight, are therefore more at risk of receiving a poisonous dose than are adults. Chemicals and minerals are valuable and extremely useful. They do great good, save many lives and much money. No-one is suggesting they should all be banned. But their value may be for nothing if the current uncontrolled, unmonitored, unregulated and unconscionable mass release and planetary saturation continues. Chemical Extinction Two billion years ago, excessive production of one particular poisonous chemical by the inhabitants of Earth caused a colossal die-off and threatened the extermination of all life. That chemical was oxygen and it was excreted by the blue-green algae which then dominated the planet, as part of their photosynthetic processes. After several hundred million of years, the planet’s physical ability to soak up the surplus O2 in iron formations, oceans and sediments had reached saturation and the gas began to poison the existing life. This event was known as the ‘oxygen holocaust’, and is probably the nearest life on Earth has ever come to complete disaster before the present (Margulis and Sagan 1986). Since it developed slowly, over tens of millions of years, the poisonous atmosphere permitted some of these primitive organisms to evolve a tolerance to O2—and this in time led to the rise of oxygen-dependent species such as fish, mammals and eventually, us. The takehome learning from this brush with total annihilation is that it is possible for living creatures to pollute themselves into oblivion, if they don’t take care to avoid it or rapidly adapt to the new, toxic environment. It’s a message that humans, with our colossal planetary chemical impact, would do well to ponder. While it is unlikely that human chemical emissions alone could reach such a volume and toxic state as to directly threaten our entire species with extinction (other than through carbon emissions in a runaway global warming event) or even the collapse of civilisation, it is likely they will emerge as a serious contributing factor during the twenty-first century in combination with other factors such as war, climate change, pandemic disease and ecosystem breakdown. Credible ways in which man-made chemicals might imperil the human future include: Undermining the immune systems, physical and mental health of the population through growing exposure to toxins Reducing the intelligence of current and future generations through the action of nerve poisons on the developing brains and central nervous systems of children, rendering humanity less able to solve its problems

#### Economic crisis sparks widespread movements towards localized sustainability.

Trainer **’**19—Conjoint Lecturer in the School of Social Sciences, University of New South Wales (Ted, “Entering the era of limits and scarcity: the radical implications for social theory,” Journal of Political Ecology Vol. 26, 2019, dml)

In time, this pressure is likely to shift from submitting requests to the state to making demands on it, and then to taking increasing control of it. There will be increasing insistence that frivolous industries must be phased out so that scarce resources can be devoted to meeting fundamental town and regional needs. Meanwhile towns will be driven by necessity to bypass the center and take initiatives such as setting up their own farms, energy supplies and factories, thus transferring various functions out of the control of the centre. There will be increasing recognition that the local is the only level where the right decisions for self-sufficient communities can be made. In time, these shifts will lead to the transfer of functions and power from state-level agencies to the local level, leaving the center with relatively few tasks, and mainly with the role of facilitating local activities. This radical restructuring could conceivably be a smooth and peaceful process, driven by a general recognition that scarcity is making local self-governing communities the only viable option. If this happens then in effect, Stage 1 will be recognized as having constituted the revolution, essentially a cultural phenomenon, and the macroscopic structural changes in Stage 2 will be seen as a consequence of the revolution. Thus a case for Anarchist theory and practice It will be evident that the alternative social organization sketched above is a fairly common Anarchist vision (although there are also varieties that are not being advocated). The argument is that settlements enabling a high quality of life for all, despite very low resource use rates, must involve all members in thoroughly participatory deliberations regarding the design, development and running of their local productive, political and social systems. Their ethos must be non-hierarchical, cooperative and collectivist, seeking to avoid all forms of domination and to prioritize the public good. They must draw on the voluntary good will and energy of conscientious citizens who are ready to contribute generously and to identify and deal with problems informally and spontaneously, and to focus on seeking mutually beneficial arrangements with little if any need for industrial infrastructures and transport networks, bureaucracy, paid officials or politicians. Regional and wider issues will be tackled by the characteristic Anarchist mechanisms of federations and (powerless) delegates bringing recommendations back down to town meetings. The principle of 'subsidiarity' is evident in the practice of grass-roots politics, the avoidance of hierarchies, and the central role of town assemblies. The very low resource costs sustainability requires are achievable because of the proximity, diversity of functions and integration, the familiarity enabling informal communication and spontaneous action, and the elimination of many processes (e.g., transport, waste dumping, fertilizer production, packaging). In the 1930s the Spanish Anarchists in the Barcelona region showed what could be done by ordinary workers and citizens. An impressive current example is the Catalan Integral Cooperative movement (Dafermos 2017; TSW 2015a). Thousands work in hundreds of different cooperatives providing hundreds of thousands of dollars worth of food, goods and services, including unemployment and other welfare services. They operate more than twenty food 'pantries' largely via voluntary labor, handling more than a thousand products. Their goal is to build an alternative society focused on meeting needs, with no involvement of the state or market principles. Many eco-villages operate according to Anarchist principles, achieving high levels of sustainability (again see Lockyer 2017 and Grinde et al. 2018). In addition it will be evident that the discussion of transition strategy also follows Anarchist principles, especially in the notion of 'prefiguring' the new here and now within the old, not depending on the centre let alone a vanguard party, and recognizing the importance of ideas and values. The advent of GFC 2 Unfortunately the foregoing transition sequence is likely to be greatly disrupted and possibly thwarted a global financial crisis of much greater magnitude than the 2008 event. It is widely recognized that the much higher levels of debt are likely to bring on at least a serious recession, and probably worse in the next few years. The global economy is heavily dependent on petroleum supply, which is been kept up by 'fracking', but this has only been made possible by enormous debt; none of the major companies in the arena has ever made a profit. Several analysts have pointed out that the price levels necessary to make the new sources of petroleum profitable now seem to be above those necessary to enable economies to function normally. In addition, Ahmed (2017) has argued persuasively that the rapidly worsening population, food, water and ecological conditions affecting Middle Eastern petroleum suppliers are increasing their chances of becoming failed states. Meanwhile the proportion of their petroleum production they must use internally is increasing, adding to the possibility that their capacity to export will dry up within a decade. These and other deteriorating resource and ecological conditions (especially falling Energy Return on Energy Invested rates) are likely to trigger serious global economic disruption long before localist initiatives have been well enough established. Yet it is very unlikely that the kind of transition envisaged could begin unless there is major breakdown in the existing consumer-capitalist system. As long as it keeps the supermarket shelves stocked, discontent is likely to be muted, and focused on demands for more jobs and higher incomes rather than system replacement. The Goldilocks outcome would seem to be an economic depression that falls short of catastrophic breakdown, but is serious enough to convince large numbers that the system is not going to provide for them. The challenge to the Left This analysis has especially important implications for those who are radically critical of consumercapitalist society. Firstly it is evident that the revolution required to solve the problem is far bigger than that which Marx envisaged. Merely getting rid of capitalism will not suffice. Secondly, the most promising frontier now for such critics is the challenge to current society being set by unsustainable resource and ecological impacts. Latouche said the limits to growth are giving critical theory its last chance (2012: 75). Yet the foregoing argument has been that this opportunity has hardly been recognized, let alone taken up. Bookchin saw this some time ago. "The New Left, like the old left, has never grasped the revolutionary potential of the ecological issues, nor has it used ecology as a basis for understanding the problems of communist reconstruction and utopia" (1973: 242). Significant and increasing numbers of ordinary people are seriously concerned about these issues and are thinking more or less in the general direction of replacing consumer-capitalism with localism and simpler ways. These themes are likely to be the most effective foundations for critical social theory and practice now. But unfortunately the Left has a deeply entrenched reluctance to embrace these ideas. The traditional assumption has been that when power has been taken from the capitalist class, the contradictions preventing full application of the productive forces will be removed and technical advance will lift all to material wealth. Socialism is distinctly not conceived today in terms of frugality or localism. Indeed some socialists embrace 'ecomodernist' ideas, notably Phillips (2014) and Sharzer (2012), who explicitly spurn the suggestion that local or simpler ways are necessary or desirable. David Harvey represents the many Marxists who reject localism both as a goal and as a revolutionary strategy in favor of the typical socialist focus on action at the state level (Harvey 2017). For a critique, see Springer (2017). The Marxist position fails to address current circumstances, where the goal must be to contradict individualistic competitive affluence and must focus on citizen involvement in local economies. Major change at the central or state level cannot be achieved before a profound cultural revolution has been achieved, and this is most likely to occur via developments at the local level. Delusion and denial: the inability to respond There are difficult and puzzling issues for social theorists that will not be taken up in this article. They are the psychological and institutional reasons for the failure to deal adequately with the limits to growth predicament, or with its major sub-problems such as the looming petroleum supply, debt, and climate change crises. The core phenomenon to be explained here would seem to be failure to even recognize the existence and/or seriousness of the problems, rather than lack of appropriate remedial action. The essential causal factor is surely that if the limits to growth analysis is accepted then perhaps the most deeply entrenched post-Enlightenment assumption has to be jettisoned, i.e., the taken-for-granted conviction that progress and the good life are defined by capacity to produce and consume more and more material wealth. The suggestion that the supreme social goal should be materially simple lifestyles and systems, with no prospect of rising to greater affluence over time, would seem to be about as distasteful and unthinkable to workers and the lumpenproletariat as to the super-affluent 1%. 6. Conclusions: a reorientation of social theory The argument is that the advent of the limits to growth issue should be seen as requiring a major shift in the focal concerns of social theorists, especially those interested in critical perspectives on contemporary society and in sustainability and utopian themes. To begin with, a limits perspective involves a commitment to an inescapable logic that leads to quite specific conclusions regarding desirable social forms and how they might be achieved. If the limits are as severe as has been argued, then the goal must be transition from consumer-capitalist society to a general form that involves far lower resource use, and this has to mean mostly small-scale local economies that are self-governing, basically cooperative and committed to materially frugal lifestyles