## 1

#### Interpretation: “medicines” is a generic bare plural. The aff may not defend that member nations of the World Trade Organization ought to reduce intellectual property protections for a medicine or subset of medicines.

Nebel 19. [Jake Nebel is an assistant professor of philosophy at the University of Southern California and executive director of Victory Briefs. He writes a lot of this stuff lol – duh.] “Genericity on the Standardized Tests Resolution.” Vbriefly. August 12, 2019. <https://www.vbriefly.com/2019/08/12/genericity-on-the-standardized-tests-resolution/?fbclid=IwAR0hUkKdDzHWrNeqEVI7m59pwsnmqLl490n4uRLQTe7bWmWDO_avWCNzi14> TG

Both distinctions are important. Generic resolutions can’t be affirmed by specifying particular instances. But, since generics tolerate exceptions, plan-inclusive counterplans (PICs) do not negate generic resolutions.

Bare plurals are typically used to express generic generalizations. But there are two important things to keep in mind. First, generic generalizations are also often expressed via other means (e.g., definite singulars, indefinite singulars, and bare singulars). Second, and more importantly for present purposes, bare plurals can also be used to express existential generalizations. For example, “Birds are singing outside my window” is true just in case there are some birds singing outside my window; it doesn’t require birds in general to be singing outside my window.

So, what about “colleges and universities,” “standardized tests,” and “undergraduate admissions decisions”? Are they generic or existential bare plurals? On other topics I have taken great pains to point out that their bare plurals are generic—because, well, they are. On this topic, though, I think the answer is a bit more nuanced. Let’s see why.

“Colleges and universities” is a generic bare plural. I don’t think this claim should require any argument, when you think about it, but here are a few reasons.

First, ask yourself, honestly, whether the following speech sounds good to you: “Eight colleges and universities—namely, those in the Ivy League—ought not consider standardized tests in undergraduate admissions decisions. Maybe other colleges and universities ought to consider them, but not the Ivies. Therefore, in the United States, colleges and universities ought not consider standardized tests in undergraduate admissions decisions.” That is obviously not a valid argument: the conclusion does not follow. Anyone who sincerely believes that it is valid argument is, to be charitable, deeply confused. But the inference above would be good if “colleges and universities” in the resolution were existential. By way of contrast: “Eight birds are singing outside my window. Maybe lots of birds aren’t singing outside my window, but eight birds are. Therefore, birds are singing outside my window.” Since the bare plural “birds” in the conclusion gets an existential reading, the conclusion follows from the premise that eight birds are singing outside my window: “eight” entails “some.” If the resolution were existential with respect to “colleges and universities,” then the Ivy League argument above would be a valid inference. Since it’s not a valid inference, “colleges and universities” must be a generic bare plural.

Second, “colleges and universities” fails the [upward-entailment test](https://plato.stanford.edu/entries/generics/#IsolGeneInte) for existential uses of bare plurals. Consider the sentence, “Lima beans are on my plate.” This sentence expresses an existential statement that is true just in case there are some lima beans on my plate. One test of this is that it entails the more general sentence, “Beans are on my plate.” Now consider the sentence, “Colleges and universities ought not consider the SAT.” (To isolate “colleges and universities,” I’ve eliminated the other bare plurals in the resolution; it cannot plausibly be generic in the isolated case but existential in the resolution.) This sentence does not entail the more general statement that educational institutions ought not consider the SAT. This shows that “colleges and universities” is generic, because it fails the upward-entailment test for existential bare plurals.

Third, “colleges and universities” fails the adverb of quantification test for existential bare plurals. Consider the sentence, “Dogs are barking outside my window.” This sentence expresses an existential statement that is true just in case there are some dogs barking outside my window. One test of this appeals to the drastic change of meaning caused by inserting any adverb of quantification (e.g., always, sometimes, generally, often, seldom, never, ever). You cannot add any such adverb into the sentence without drastically changing its meaning. To apply this test to the resolution, let’s again isolate the bare plural subject: “Colleges and universities ought not consider the SAT.” Adding generally (“Colleges and universitiesz generally ought not consider the SAT”) or ever (“Colleges and universities ought not ever consider the SAT”) result in comparatively minor changes of meaning. (Note that this test doesn’t require there to be no change of meaning and doesn’t have to work for every adverb of quantification.) This strongly suggests what we already know: that “colleges and universities” is generic rather than existential in the resolution.

#### Violation: They spec \_\_\_\_\_\_

#### 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 Covid vaccines, HIV drugs, Insulin, antiobiotics, CRISPR, cancer, cannabis— there's no universal DA since each has different functions and political implications — that explodes neg prep and leads to random medicine 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 medicines which are some of the few neg generics when affs spec medicines.

#### [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. Outweighs because it’s the only intrinsic part of debate – all other rules can be debated over but rely on some conception of fairness to be justified.

#### 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

#### Rzn on 1AR theory- 2AR responses to the 2NR CI are new and there’s no 3NR to respond- makes it irresolvable

#### DTA on 1AR theory- they can blow up a blippy 20 second shell to 3 min, while I have to spend 2:30 on it- o/w on quantifiability

## 2

#### 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 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: [a] Frameworks are topicality interps of the word ought so they should be theoretically justified. Prefer on resource disparities—a focus on evidence and statistics privileges debaters with the most preround prep which excludes lone-wolfs who lack huge evidence files. A debate under my framework can easily be won without any prep since huge evidence files aren’t required.

#### Negate:

#### 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.

#### 3]The aff encourages free riding- that treats people as ­means to an end and takes advantage of their efforts which violates the principle of humanity

**Van Dyke 2** 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

Also, **allowing the free taking of ideas, content and valuable data, i.e., the fruits of individual intellectual endeavor**, would disrupt capitalism in a radical way. **The resulting more secretive approach in support of the above free-riding Statement** would be akin to a Communist environment **where the State owned everything and the citizen owned nothing, i.e., the people “consented” to this. It is, accordingly, manifestly clear that no reasonable and supportable Categorical Imperative can be made for the unwarranted theft of property, whether tangible or intangible,** apart from legitimate exigencies.

## 3

#### Text: A nation appointed international panel of scientists including National Academies and corresponding organizations should [reduce intellectual property protections] and manage similar conflicts of interest between intellectual property.

#### International panel of science diplomats can rule over IP---that’s key to science diplomacy.

Hajjar and Greenbaum 18 [David; Dean Emeritus and University Distinguished Professor, and Professor of Biochemistry and Pathology at Weill Cornell Medicine, Cornell University. He is a Fellow of the American Academy of Arts and Sciences, Fellow of the American Association for the Advancement of Sciences, a Jefferson Science Fellow of the National Academies at the U.S. Department of State, and a recent Senior Fellow in Science Policy at the Brookings Institute; Steven; Professor and Chair of the Department of Physics and Astronomy at Hunter College of the City University of New York and a Fellow of the American Physical Society. He was a Jefferson Science Fellow of the National Academies at the U.S. Department of State; “Leveraging Diplomacy for Managing Scientific Challenges,” American Diplomacy; September 18; <https://americandiplomacy.web.unc.edu/2018/09/leveraging-diplomacy-for-managing-scientific-challenges-an-opportunity-to-navigate-the-future-of-science/>] Justin

At the global level, science diplomacy is defined as cooperation among countries in order to solve complex problems through scientific research and education (1). For example, science diplomacy plays an important role in resolving global issues related to the ecosystem (such as clean water, food safety, energy conservation, and preservation of the environment). It also addresses problems related to the healthcare industry. For example, scientists have served at the international level to forge the Middle Eastern Cancer Consortium a decade ago to facilitate better healthcare and improve cancer research in the region. Whether one considers science for diplomacy or diplomacy for science, international science collaborations benefit from allowing science diplomats (broadly defined as science envoys, science attaches, embassy fellows) to help establish positive international relationships between the U.S., Europe, Latin America, Africa or Asia, particularly when proprietary disputes arise (2, 3). These various types of science diplomats already exist; some, like embassy fellows and science envoys, have one-year appointments so their role may be limited, while attaches usually have two or three year appointments that may allow them to be more successful in long, protracted negotiations. In any event, we believe that scientists can play more of a role in advancing international scientific cooperation. A key point addressed here is how to balance security concerns against the need for free exchange of information needed for innovation and growth.

Both the National Science Foundation and the National Institutes of Health are already engaged in supporting American science and strengthening collaborations abroad. Such efforts take advantage of international expertise, facilities, and equipment. Here, we provide a rationale for the use of diplomacy to address scientific challenges. This approach allows some scientists working as diplomats to help manage complex and potentially conflicting situations that arise between scientific communities and their governments. Such issues include managing disputes such as licensing agreements for intellectual property (IP) and providing protection of IP.

International collaborations can not only support but also accelerate the advancement of science. However, collaborations may carry risk if IP is misappropriated for other purposes. International collaborations should have a basis in strategy and specific goals (for example, drug discovery) in order to justify the use of government and/or corporate funds.

About a decade ago, a group of academics from the University of Manchester in the United Kingdom assembled the “Manchester Manifesto,” subtitled “Who Owns Science” (6). This document addressed the lack of alignment between commercial interests, intellectual rights, and credit to the researcher. In our (and commonly held) view, the groups representing these disparate values could benefit from diplomatic mediation. More recently, it has become increasing apparent that managing China as a science and technology superpower represents another challenge for the U.S. Resolution of issues such as ownership of IP, rights to reagents, or use of skilled laboratory personnel from international collaborations may require the efforts of science diplomats. There are few international offices or “guardians” to protect junior and senior scientists in corporate or academic sectors from misuse of reagents or piracy.

China’s failure to respect IP rights, and the resulting piracy, has drawn much attention. The media have also focused on the failure of watchdog government agencies to detect and manage these unwanted activities. Industrial espionage compromises U.S. interests. Moreover, Chinese and Russian hackers have cyberattacked U.S. technology companies, financial institutions, media groups, and defense contractors. In 2018, industrial spying was even reported in a major medical school in New York City where scientists were alleged to have illegally shared research findings with Chinese companies.

The U.S. has a long history of hiring research personnel from other countries to staff its laboratories and industrial R&D centers. These scientists and engineers have made critical contributions to our nation’s well-being and security. These young Chinese and South Asian graduates of U.S. programs a generation ago now staff our research enterprise. However, recent trends in U.S. graduate school applications in science, technology, engineering and mathematics (STEM) reflect a downturn in foreign applicants, particularly from China. It is becoming increasingly apparent that the number of American-born students seeking STEM degrees is not sufficient to satisfy future demands of our high-tech workforce. While our own educational reforms must be augmented, we cannot ignore the need to continue to recruit overseas talent.

We believe that foreign scientists can continue to make critical discoveries in the U. S. provided that their talent is nurtured, developed, and harnessed for the common good. At the same time, American companies cannot hire foreign scientists if they take the ideas they generate in U.S. laboratories back to their home countries without proper credit or permission. If the advancement of science is to succeed, greater diplomatic cooperation is needed to solve and manage proprietary issues for the benefit of all (5, 6).

So, how does one strike the proper balance between security and growth? Science is a universal social enterprise; international conferences lead to friendships and productive collaborations between nations. Given that the U.S. and Chinese governments recognize the need for international communication and collaboration then surely there should be a mechanism for adjudicating anticipated conflicts. One approach would be for government, industrial, and academic stakeholders to form an international panel of scientists and engineers to manage any conflicts of interest between the need to protect proprietary information crucial to a company’s competitive edge, and the need for students and young faculty members to publish their findings. Smaller scale efforts along these lines have recently given rise to unique global partnerships, such as fellowship support by major pharmaceutical companies, which aim to address these conflicts to the benefit of both parties. An added feature of such arrangements is that they often provide corporate financing for research (9). Can this corporate-academic partnership model be adapted to multinational joint R&D efforts while protecting IP? This question falls squarely within the purview of international science diplomacy, whereby science diplomats can establish rules of conduct governing joint global technology development with proper IP protection.

Despite the highly publicized and legitimate piracy allegations against China, at least some data indicates that the Chinese legal system is responding positively to worldwide pressure to honor foreign IP. A 2016 study by Love, Helmers, and Eberhardt, for example, found that between 2006 and 2011, foreign companies brought over 10 percent of patent infringement cases in China, and won over 70 percent of those cases (10). Today, “win rates” average around 80 percent, and “injunction rates,” around 98 percent (10). As Chinese scientists and engineers increasingly enter the top tier of the innovation space, their growing awareness of their own need for IP protection could be a powerful motivating force for the protection of all IP. As stated earlier, science diplomats could catalyze this progress even further by direct negotiations with those parties involved in the conflicts. An obvious flaw in this optimistic outlook is that scientists in the U.S. wield more influence with their government than scientists in China wield with theirs. And to the extent that the Chinese government could be encouraging IP theft, this must be addressed first by those international companies/firms who want to do business with the Chinese. Chinese investments, as well as tech incubators and targeted acquisitions, can enable access to U.S. technologies for commercial development. Although this conveys a level of risk to the developers, it may provide valuable opportunities for U.S. companies as well. In many respects, the extensive engagement and collaboration in innovation between the U.S. and China, often characterized by open exchanges of ideas, talent, and technologies, can be mutually beneficial in enriching and accelerating innovation in both countries.

In summary, we believe that science diplomats could help address the increasingly complex issues that arise between accelerating scientific and engineering advances, and the need to protect national security and corporate IP. We also propose that this might be accomplished by asking the National Academies to **recommend** academic, corporate, and government scientific leaders to serve on an international scientific advisory board, and for the corresponding organizations in other countries to do the same. Access to the free flow of information promotes new knowledge and innovation. A return to a more restrictive intellectual environment is not only harmful to progress, but also nearly impossible to manage in the current internet age. A good place to start would be to engage the newly appointed head of the White House Office of Science and Technology Policy (the Science Advisor to the President of the United States), and working groups within established organizations. These organizations include the American Association for the Advancement of Science (AAAS) or the National Academies of Science, Engineering and Medicine, and corresponding international organizations. What incentive is there for a busy and successful scientist to serve in such capacity? It is the same altruism that motivates us to accept assignments as journal editors, manuscript reviewers, or funding agency panelists for the advancement of science toward the greater good.

#### COVID exposed weaknesses in science diplomacy—revitalizing it is key to solving every existential threat.

Gluckman and Turekian 20 [Peter and Vaughan; 6/17/20; Sir Peter Gluckman is the chair of the International Network for Government Science Advice, director of Koi Tū: The Centre for Informed Futures at the University of Auckland, and former science adviser to the New Zealand prime minister. Vaughan Turekian is the executive director of policy and global affairs at the National Academies of Sciences, Engineering, and Medicine and a former science and technology adviser to the US secretary of state; “Rebooting Science Diplomacy in the Context of COVID-19,” Issues, <https://issues.org/rebooting-science-diplomacy-in-the-context-of-covid-19-lessons-from-the-cold-war/>] Justin

The COVID-19 pandemic is amplifying preexisting tensions between the United States and China across all domains, including science and technology. This is happening even as global science and technology cooperation has become a central feature of public health and the development of vaccines and treatments. Does this new dynamic between the two powers accurately reflect a changed world, and could it presage greater tension to come? The United States’ and China’s different political and economic models and distinct domestic and global interests create rising tensions as their soft power footprints (and increasingly hard power influences) span the globe. This places many other nations in a position not unlike that during the Cold War, when countries found themselves uneasily sitting between two elephants, the United States and the Soviet Union, pulling in different directions. We do not know whether today’s US-China tension will settle into an uncomfortable status quo or lead to a progressive decoupling or a more rapid severance between the two economic giants. It might even develop into a more stable and constructive relationship. This creates an opportunity for science diplomacy to again help bridge the gap between two major powers with conflicting worldviews, as happened in the Cold War. Important lessons from the science diplomacy of that era may help inform how best to respond in the current geopolitical context. Science diplomacy between 1945 and 1991 played an important role in preventing US-Soviet relations from degrading into mutual destructiveness. It led to the establishment of critical institutions and initiatives that advanced scientific understandings that underpinned critical agreements. Through the 1950s, 1960s, and 1970s, scientists working with or without the explicit support of their governments played crucial roles in ensuring some level of civility and progress in the otherwise tense superpower relationship. Some examples are illustrative. Prompted by a recommendation from the International Council of Scientific Unions (ICSU), the major powers agreed on the 1957–58 International Geophysical Year that led to the signing of the Antarctic Treaty in 1959, ensuring that Antarctica was a place for peaceful scientific purposes rather than for exploitative or military gain. In the 1960s Soviet Premier Alexei Kosygin and US President Lyndon Johnson worked to establish the International Institute for Applied Systems Analysis, which focused on collaborative research between the major powers and their partners in areas that are now of increasing importance, such as the nexus of energy, water, and food. In 1985 the United States and the Soviet Union became two of the founding signatories for the Vienna convention for the protection of the ozone layer. Remarkably, collaboration between the superpowers grew even in areas that might be sensitive, such as space; the American Apollo and Soviet Soyuz spacecraft docked in orbit in 1975, and the two nations signed a joint agreement on space cooperation in 1987. Scientists working with or without the explicit support of their governments played crucial roles in ensuring some level of civility and progress in the otherwise tense superpower relationship. A critical lesson learned during this era was that science focused on fundamental questions and global processes could help in maintaining connections and building understanding, even in the face of growing political and security tensions. In this context, institutions including academies of science, international organizations such as ICSU, and United Nations technical organizations provided important conduits for collaboration. The role of science in diplomacy became more widespread following the collapse of the Soviet Union in 1991. Science diplomacy played a constructive role in approaching global issues such as climate change, biodiversity loss, sustainable development, and global health. These are areas where international science flourishes, and the value of this cooperation is plain to see. But they are also areas where science diplomacy translated into policy in the forms of conventions, treaties, and agreements—most notably with the Intergovernmental Panel on Climate Change, which provided space for developing international cooperation around climate science even as the politics of climate policy were more difficult to address. Other agreements—such as the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services, the Convention on Biological Diversity, and numerous lower-profile partnerships—provided ways to engage science well before broader international policy regimes around thorny global issues could be adequately addressed. Such is the backdrop to the growing and serious US-China rivalry. The rising health, economic, and societal impacts of COVID-19, and accusations about responsibility for them, have greatly fuelled mutual suspicion and antagonism. Yet the world is looking for a sense of equilibrium between the great powers. Countries such as Australia and New Zealand find themselves increasingly stretched between their trading dependency with China and their historical, security, and political ties with the United States. Smaller nations that rely heavily on the multilateral rules-based order through the World Trade Organization and for technical help though bodies such as the World Health Organization fear that the US-China tension is undermining core elements of this system. RISING SUPERPOWERS, RISING TENSIONS China has moved rapidly to the leading edge in many domains of science. It has invested heavily in building advanced research infrastructures and a skilled technical workforce. Hundreds of thousands of Chinese students, research fellows, and scholars have studied in the West. China is now the second largest source of scientific papers after the United States, and an increasing number involve international coauthorship—with more than 40% having US-based coauthors. Thus there is the latent base for extended East-West cooperation. But China’s ascendance as a superpower is not without concerns about integrity. There is ongoing wariness about scientific espionage in potentially commercially important areas, including intellectual property management and technology transfer. At the same time, law enforcement agencies in the United States and other Western economies are suspicious of Chinese theft of cutting-edge research and technology. All contribute to a sense within many Western policy circles that some forms of scientific misconduct are endemic in China. The rising health, economic, and societal impacts of COVID-19, and accusations about responsibility for them, have greatly fuelled mutual suspicion and antagonism. COVID-19 has amplified concerns, as accusations flow about the availability and accuracy of Chinese data on the origin and impact of the SARS-CoV-2 virus that causes the disease. But there are also concerns about the veracity of some of the US data. Leading Western scientific journals have retracted suspicious results regarding the treatment of COVID-19; the choice of drugs has been politicized. There are disagreements about the accuracy of COVID-19 death counts promulgated by the White House versus those from the US Centers for Disease Control and Prevention. At the same time, the Trump administration’s withdrawal of funding from WHO has increased international concerns about the politicization of the pandemic and the breakdown of the international technical agencies that were designed to address global challenges. As the United States moves its focus away from the international stage and toward an “America First” policy, China has filled that space with a greater presence in the various bodies of the United Nations and an increasing range of multinational partnerships. Science has become a critical component of Chinese efforts to expand influence over international policies and relationships. One example is the Belt and Road Initiative, which while designed to build greater economic ties across Eurasia and Africa has also established a significant scientific and technological component, including its own international scientific organization. The initiative refers often to the UN Sustainable Development Goals, which reinforces a perception that China’s foreign policy goals are well-aligned with globally agreed upon measures. Within the COVID-19 crisis, science has shown a remarkable willingness to work across national and organizational boundaries. Similar to how diverse stakeholders came together in the West Africa Ebola outbreak of 2014–16, academic organizations, philanthropy, and the private sector have worked across country borders to develop broader science understandings of the COVID-19 challenge and approaches to solving it. WHO has launched the Solidarity trial, which involves investigators in over 35 countries, as well as a technology access pool to share information and data. The US National Academies of Sciences, Engineering, and Medicine is working with a US-based nongovernmental organization to help advise the Africa Centres for Disease Control and Prevention on the use and effectiveness of nonpharmaceutical interventions. But unlike earlier health challenges, COVID-19 is also being used within official government engagements to exacerbate tensions. Competition is underway to not only frame blame for the pandemic but to develop countermeasures domestically. Science can use its tools of informal diplomacy to try to reduce tensions. This will require global scientific organizations and individual scientists to recognize that their contribution to society is more than just building knowledge; it also involves building relationships and reducing tensions. This is truer today than at any time since the end of the Cold War 30 years ago. We need both formal and informal science diplomacy to play their role in navigating the rocky path ahead. Increasing and using science diplomacy will not be easy given the broad suspicions on both sides and the growing awareness of the coupling between scientific and economic competition between the two major powers. The tensions between the United States and China are distinct from those between the United States and the Soviet Union through most of the second half of the twentieth century. Societies, including the scientific community, are much more intertwined today at all levels. At the same time, the breakdown of many post-World War II institutions, and the growing trend toward nationalism and isolationism in the West, leaves a major gap in the infrastructure that would be needed to support technical discussions on global issues. Unlike earlier health challenges, COVID-19 is also being used within official government engagements to exacerbate tensions. But there are some opportunities. Both China and the United States are active in a number of multilateral scientific organizations, such as the International Science Council (ISC), which succeeded ICSU in 2018 and has been looking at ways to adapt to the new realities. Working through ISC to develop principles for science cooperation and conduct could provide an important framework for developing a set of norms and standards that could be applied to science writ large. It would also build an early foundation for broader technical discussions among scientists. After the Chernobyl nuclear accident in 1986, countries with very different political views rapidly agreed on a Convention on Early Notification of a Nuclear Accident—signed even while the Cold War raged. Could the scientific community define the basis of a similar convention to alert the global community to an emerging disease from a novel organism that jumped from an animal into humans? Such an agreement could provide for the time-critical sharing of biosamples and data. The ISC and its members have the expertise and nonpartisan basis to develop the scientific criteria for such a convention. And given that both US and Chinese commentators have made allegations regarding the origins of the COVID-19 virus in the other’s military research, it may be time to address the lack of a scientific support system for the Biological Weapons Convention. This lack of support, 45 years after the convention came into force, is in marked distinction to that related to chemical weapons. Recall the lessons from the Cold War. One is the need to focus on areas and topics of mutual interest and concern, such as space, cutting-edge energy projects, and global health. Another is to focus on building institutional links, either by taking advantage of existing institutions of science or, when opportunities arise, creating new ones. In this endeavor, nongovernmental or quasigovernmental organizations are particularly important. But shared interest between the Americans and Soviets around technically based global challenges such as Antarctica and the loss of the ozone layer also provided an important means to overcome political mistrust to work toward common, science-based solutions. Perhaps the United States and China, joined by allies on both sides, could develop new projects and facilities to explore and understand the physics and biology of the oceans—which, while often involving critical strategic and economic interests, is an arena where scientists can work together outside traditional political venues to develop better understandings. Whatever the area of focus, both sides of the Pacific need to recognize that the status quo is not sustainable. New systems and new approaches will be critical for advancing the science while leaving open important communication avenues for diplomacy.

## Case

#### No global food wars – the status quo is overproduction.

**Latham ’15 (Jonathan; 1/12/2015; PhD in sustainable agriculture; “How the Great Food War Will Be Won,”**<https://www.independentsciencenews.org/environment/how-the-great-food-war-will-be-won/>**; Date Accessed: 10/15/2016)**

Yet this strategy has a disastrous foundational weakness. There is **no global or regional** shortage of food. There **never** has been and nor is there ever likely to be. India has a **superabundance** of food. South America is swamped in food. The US, Australia, New Zealand and Europe are swamped in food (e.g. Billen et al 2011). In Britain, like in many wealthy countries, nearly half of all row crop food production now goes to biofuels, which at bottom are an attempt to dispose of surplus agricultural products. China isn’t quite swamped but it still exports food (see Fig 1.); and it grows 30% of the world’s cotton. No foodpocalypse there either. Of all the populous nations, Bangladesh comes closest to not being swamped in food. Its situation is complex. Its government says it is self-sufficient. The UN world Food Program says it is not, but the truth appears to be that Bangladeshi farmers do not produce the rice they could because prices are too low, because of persistent gluts (1). Even some establishment institutions will occasionally admit that **the food shortage concept** – now and in any reasonably conceivable future – **is bankrupt**. According to experts consulted by the World Bank Institute there is already sufficient food production for **14 billion** people – more food than will **ever be needed**. The Golden Fact of agribusiness is a lie. So, if the agribusiness PR experts are correct that food crisis fears are pivotal to their industry, then it follows that those who oppose the industrialization of food and agriculture should make dismantling that lie their top priority. Anyone who wants a sustainable, pesticide-free, or non-GMO food future, or who wants to swim in a healthy river or lake again, or wants to avoid climate chaos, needs to know all this. Anyone who would like to rebuild the rural economy or who appreciates cultural, biological, or agricultural diversity of any meaningful kind should take every possible opportunity to point out the evidence that refutes it. Granaries are bulging, crops are being burned as biofuels or dumped, prices are low, farmers are abandoning farming for slums and cities, all because of **massive oversupply**. Anyone could also point out that probably the least important criterion for growing food, is how much it yields. Even just to acknowledge crop yield, as an issue for anyone other than the individual farmer, is to reinforce the framing of the industry they oppose.

#### Food shortages don’t cause conflict.

Buhaug et al ‘15 [Halvard Buhaug, Peace Research Institute in Oslo an Norwegian University of Science and Technology. Tor Benjaminsen, Espen Sjaastad, Ole Magnus Theisen.] “Climate variability, food production shocks, and violent conflict in Sub-Saharan Africa” Environmental Research Letters, Volume 10, Number 12 (http://iopscience.iop.org/article/10.1088/1748-9326/10/12/125015) - MZhu

Across all models, we find relatively weak and insignificant effects for domestic food production and we also note that the sign of the coefficients shifts between outcome types. In this sense, table 1 implicitly contrasts both claims that political violence is more prevalent when basic needs are met (Salehyan and Hendrix 2014) and claims that agricultural income shocks increase civil conflict risk (von Uexkull 2014). The results are consistent with Koubi et al (2012) and van Weezel (2015), however, who conclude that rainfall—a significant determinant of yields in SSA—has little impact on conflict either directly or through economic performance. The covariate that best and most consistently explains temporal variation in political violence is the time-lagged conflict incidence indicator. Models 1–2 show that a new civil conflict is unlikely to break out if another one is already ongoing in the same country whereas Models 3–6, which capture the occurrence of less organized conflict, demonstrate that violence begets violence. Coups d'état (Models 7–8) exhibit a comparatively weak temporal correlation pattern in our data and are generally regarded as a highly unpredictable phenomenon (Luttwak 1979). Next, we estimate the same set of models on a subsample of 14 countries in SSA where rainfall has a large and significant positive effect on food production (figure 2(b); see supplementary information, section B for details). To better capture the influence of climate variability and reduce concerns with endogeneity, we further replace the standard OLS model with two-stage instrumental variable regression. The first stage in this model estimates the joint influence of annual rainfall (linear and squared terms) and temperature (linear) on contemporaneous food production. This effect then constitutes the exogenous instrument for food production in the second stage. The results are reported in table 2. Mirroring the results presented above, we fail to uncover a robust signal for agricultural performance, although the sign of the coefficient for food production now remains negative in seven of the eight specifications. Food production shocks may have different consequences depending on the socioeconomic context, so next we consider a series of interactive relationships. Specifically, we investigate the joint effect of food production and (i) low level of development, (ii) extent of discriminatory political system, and (iii) economic dependence on agriculture; three conditions whereby loss of income from agriculture might constitute a particular challenge to society. To model these interactions, we include time-varying regressors instead of country-fixed effects where (i) is represented by infant mortality rate (IMR; World Bank 2014), (ii) is captured using the Ethnic Power Relations v.1.1 data (Cederman et al 2010), while (iii) uses an index of agricultural contribution to GDP (World Bank 2014). Moreover, to preserve focus on temporal dynamics, food production is now operationalized as yearly deviation from the country mean, 1961–2009. We use additive inverse deviation values to ensure theoretical consistency among the components in the interaction terms. All models control for (ln) population size, conflict history, and a common time trend, and models without IMR and agricultural dependence additionally control for (ln) GDP per capita. The results are presented in table 3. Again, we are unsuccessful in establishing a consistent covariation pattern between agricultural performance and political violence. Interpreting the combined effect of interaction terms with continuous parameters is inherently difficult but figure 4 shows that food production is insignificantly related to all conflict outcomes across levels of socioeconomic development for all three interaction terms. The sole exception is the result in Model 24, where lower food production in highly discriminatory societies is negatively associated with non-state conflict. This result would seem to contradict the standard scarcity thesis (Homer-Dixon 1999) although it is consistent with observations that conflict is more prevalent during surplus years (Witsenburg and Adano 2009, Salehyan and Hendrix 2014). Mirroring earlier research, ethnopolitical exclusion is strongly related to higher civil conflict risk, but not necessarily to other forms of political violence. Infant mortality rate and economic dependence on agriculture appear largely irrelevant. While this may come as a surprise, recall that most countries in SSA are characterized by underdevelopment and a large agricultural sector, implying that the variation in values on these indicators is modest. Large parameter uncertainties and p-values above the conventional significance threshold (5%) may disguise substantively important effects (Ward et al 2010). Accordingly, as a final assessment, we conduct a set of out-of-sample simulations and compare predictions for models with and without food production. The models are estimated on a subset of the full sample, in this case all years before 2000, and the estimated effects are then used to predict conflict outcomes out of sample, i.e., the 2000–09 period. Figure 5 shows the predicted values from four pairs of models that are specified similarly to Models 17, 20, 23, and 26, except for the shorter time period and the fact that one model in each pair drops the food production deviation variable. For civil conflict and social unrest, the models generate very similar predictions, signaling that agricultural performance adds little to the models' predictive power. There is more spread in the predictions for the remaining two outcome categories. Puzzlingly, the model without food production performs better in both cases—i.e., the Receiver Operating Characteristics curves have higher 'Area Under the Curve' scores. We hesitate to put too much emphasis on the ROC tests, given the rareness of the outcomes (notably Models 17 and 26) and the relatively small training samples (Models 20 and 23), but nonetheless the patterns observed in the out-of-sample simulations substantiate the regression results reported above; fluctuations in agricultural output explain little of the observed variation in political violence in post-colonial Sub-Saharan Africa. 5. Concluding remarks Emerging evidence suggests that food price shocks are associated with an increase in social unrest (Smith 2014, Bellemare 2015, Hendrix and Haggard 2015, Weinberg and Bakker 2015). Yet, the robust 'non-finding' presented here implies that so-called 'food riots' play out largely isolated from climate-sensitive production dynamics in the affected countries. Likewise, claims that adverse weather and harvest failure drive contemporary violence in Africa (e.g., Hsiang et al 2013, IFPRI 2015) are not supported by our analysis. Instead, social protest and rebellion during times of food price spikes may be better understood as reactions to poor and unjust government policies, corruption, repression, and market failure (e.g., Bush 2010, Buhaug and Urdal 2013, Sneyd et al 2013, Chenoweth and Ulfelder 2015).

#### Biodiversity loss good – elevated levels of biodiversity destabilizes ecosystems, destroys quality of biomass production, and destroys the climate and ecological health.

**Hays 18** Brooks Hays, 10-18-2018, "Too much biodiversity can be bad for some ecosystems," UPI, <https://www.upi.com/Science_News/2018/10/18/Too-much-biodiversity-can-be-bad-for-some-ecosystems/3801539866906/> SJCP//JG

Oct. 18 (UPI) -- New research suggests it's possible to have too much biodiversity. In lab tests, scientists in Switzerland showed elevated levels of biodiversity can destabilize ecosystems under certain conditions. Understandably, most research into the effects of climate change on ecological health have focused on decreased levels of biodiversity measured around the globe. The evidence on the topic is consistent. Most ecosystems host too little biodiversity, not too much. But researchers at the University of Zurich and the Swiss Federal Institute of Aquatic Science and Technology weren't interested in most ecosystems -- or any real ecosystem, for that matter. They wanted to better understand the relationship between biodiversity and ecological stability. In the lab, the team of ecologists created miniature ecosystem models using different combinations of six ciliates species. Ciliates are tiny protozoans that live anywhere there is water. In sample vials, scientists mixed different numbers and combinations of ciliate species. Researchers then exposed the miniature model ecosystems to temperatures between 15 and 25 degrees Celsius. Different models were exposed to different levels of warming to approximate climate change. A special computer algorithm and video analysis technology allowed scientists to track the different species and changing levels of biomass in each vial. The experiments produced contradictory results. The data showed biodiversity have both a positive and negative impact on ecosystem stability. "Ecological stability is complex and consists of various components," Frank Pennekamp, an evolutionary biologist at the University of Zurich, [said in a news release](https://www.media.uzh.ch/en/Press-Releases/2018/Biodiversity.html). "The experiment shows how biodiversity affects the individual stability components in different ways." Scientists identified a strong correlation between biodiversity and stable biomass production. The greater the number of species in a vial, the less biomass production fluctuated. But as temperatures increased, scientists found biodiversity put a downward pressure on biomass production. Protozoans in diverse and warming ecosystems produced less biomass. The new study -- published this week [in the journal Nature](https://www.nature.com/articles/s41586-018-0627-8) -- suggests biodiversity, under certain circumstances, can in fact limit an ecosystem's stability. "The results make it clear that more species alone is not enough to ensure the overall stability of an ecosystem," said Florian Altermatt, professor of aquatic ecology at the Swiss Federal Institute of Aquatic Science. "In addition to a diversity of species, the species themselves must be able to react to environmental changes in a variety of ways."