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#### U.S. leads innovation globally but it’s on the brink

Khan 19 [Dr. Mehmood Khan, chair of the U.S. Council on Competitiveness and Vice Chairman and Chief Scientific Officer for Global Research & Development, PepsiCo. “Maintaining U.S. Leadership in Science and Technology.” 3/18/19. https://insight.ieeeusa.org/articles/maintaining-u-s-leadership-in-science-and-technology/]

Can the U.S. Compete?

We are seeing changes in technology, competition and the global economy, historic in terms of their size, speed and scope. The U.S. faces hyper competition, a potential new global superpower competitor in China, and the prospect of economic and social disruption brought about by the unrelenting and accelerating march of technology. Nevertheless, in a global economy ever more driven by technology and innovation, an enabling environment for innovation remains the advantage of only a few economies, with the United States in a position of significant strength:

The U.S. remains the world’s epicenter for disruptive innovation, thanks to its exceptional research infrastructure and low barriers to entrepreneurs and start-ups.

The U.S. remains the world leader in high-tech manufacturing. It has a 31-percent global share and its output is growing. China is closing the gap with a 24-percent share and its output is also growing, surpassing Japan and the EU.

The U.S. remains the world’s largest investor in R&D for 28 percent of global R&D spending. It now invests half a trillion in R&D per year and has built up a globally unparalleled national stock of science and technology.

Because the U.S. is by far the world’s largest innovator in basic research, it dominates patenting, sowing the seeds of future innovation, representing about one quarter of all international patent applications filed in 2016.

The U.S. has distinctive assets – its national laboratories and top research universities.

In the U.S. innovation ecosystem, industry, start-ups, national labs and universities collaborate on R&D across the spectrum of science and technology.

Vast amount of venture capital is pouring in to commercialize advanced technologies.

The U.S. is seen as the global technology leader. A recent survey asked researchers across the world which country they considered to be the global leader in 12 advanced industries. The U.S. was named most often in 11 of the 12 industries.

Despite these significant U.S. strengths, the competitiveness of a wide range of nations – not to mention economic and technological change – is dynamic and ever transforming. A country’s comparative position can change rapidly.

Conclusion

The United States is at a critical moment in time in national innovation systems research and action. New, transformational models driven by the democratization and self-organization of innovation are emerging and taking root across the nation. But, at the same time, U.S. leadership is under threat. The United States faces now what are perhaps existential challenges to its global leadership in innovation. America’s role in technology advancement is diminishing globally—now accounting for only one-quarter of global research & development investments, down from two-thirds in 1960. Competitors are increasing their capacity for innovation. And rapid technological change and disruption have impacted the workforce and communities.

When the U.S. controlled the direction of technology, we were positioned to control our economic destiny. That is no longer guaranteed. The United States must take stock. We must assess if our innovation ecosystems and investments are enough to maintain our global economic and technological leadership. And, as technology seeps into nearly every aspect of American life, our national leaders and our government at every level must bolster their knowledge and response capabilities to match the strengthening competition, technological change and disruptions that are coming.

#### Strong commercial space catalyzes tech innovation – progress at the margins and spinoff tech change global information networks

Joshua Hampson 2017, Security Studies Fellow at the Niskanen Center, 1-25-2017, “The Future of Space Commercialization”, Niskanen Center, https://republicans-science.house.gov/sites/republicans.science.house.gov/files/documents/TheFutureofSpaceCommercializationFinal.pdf

Innovation is generally hard to predict; some new technologies seem to come out of nowhere and others only take off when paired with a new application. It is difficult to predict the future, but it is reasonable to expect that a growing space economy would open opportunities for technological and organizational innovation. In terms of technology, the difficult environment of outer space helps incentivize progress along the margins. Because each object launched into orbit costs a significant amount of money—at the moment between $27,000 and $43,000 per pound, though that will likely drop in the future —each 19 reduction in payload size saves money or means more can be launched. At the same time, the ability to fit more capability into a smaller satellite opens outer space to actors that previously were priced out of the market. This is one of the reasons why small, affordable satellites are increasingly pursued by companies or organizations that cannot afford to launch larger traditional satellites. These small 20 satellites also provide non-traditional launchers, such as engineering students or prototypers, the opportunity to learn about satellite production and test new technologies before working on a full-sized satellite. That expansion of developers, experimenters, and testers cannot but help increase innovation opportunities. Technological developments from outer space have been applied to terrestrial life since the earliest days of space exploration. The National Aeronautics and Space Administration (NASA) maintains a website that lists technologies that have spun off from such research projects. Lightweight 21 nanotubes, useful in protecting astronauts during space exploration, are now being tested for applications in emergency response gear and electrical insulation. The need for certainty about the resiliency of materials used in space led to the development of an analytics tool useful across a range of industries. Temper foam, the material used in memory-foam pillows, was developed for NASA for seat covers. As more companies pursue their own space goals, more innovations will likely come from the commercial sector. Outer space is not just a catalyst for technological development. Satellite constellations and their unique line-of-sight vantage point can provide new perspectives to old industries. Deploying satellites into low-Earth orbit, as Facebook wants to do, can connect large, previously-unreached swathes of 22 humanity to the Internet. Remote sensing technology could change how whole industries operate, such as crop monitoring, herd management, crisis response, and land evaluation, among others. 23 While satellites cannot provide all essential information for some of these industries, they can fill in some useful gaps and work as part of a wider system of tools. Space infrastructure, in helping to change how people connect and perceive Earth, could help spark innovations on the ground as well. These innovations, changes to global networks, and new opportunities could lead to wider economic growth.

#### Short innovation cycles mean every contract counts

John J. Klein 19, Senior Fellow and Strategist at Falcon Research Inc. and adjunct professor at the George Washington University Space Policy Institute, 1-15-2019, "Rethinking Requirements and Risk in the New Space Age," Center for a New American Security, https://www.cnas.org/publications/reports/rethinking-requirements-and-risk-in-the-new-space-age

Unfortunately, these variances in models between the MDAP’s lengthy development cycle and the commercial space sector’s 18-month innovation cycle are a result of stark differences in thinking about requirements and risk. Requirements and risk for MDAPs commonly focus on ensuring critical mission capabilities at a given cost. In contrast, the commercial space sector tends to focus more on providing innovation quickly using economies of scale. The commercial sector understands that time dynamically shapes decisions related to requirements and risk because of the relatively short innovation cycle. In a highly competitive space sector with tight profit margins, those unable to innovate quickly will likely be out of business soon. Alternatively, space systems with mission assurance requirements – where failures are detrimental to national security and military operations – often drive DoD’s timelines. Program managers of critical national security space systems commonly require additional time to test and verify that satellites can perform missions with a very low probability of failure.

#### Tech innovation solves every existential threat – cumulative extinction events outweigh the aff

Dylan **Matthews 18**. Co-founder of Vox, citing Nick Beckstead @ Rutgers University. 10-26-2018. "How to help people millions of years from now." Vox. https://www.vox.com/future-perfect/2018/10/26/18023366/far-future-effective-altruism-existential-risk-doing-good

If you care about improving human lives, you should overwhelmingly care about those quadrillions of lives rather than the comparatively small number of people alive today. The 7.6 billion people now living, after all, amount to less than 0.003 percent of the population that will live in the future. It’s reasonable to suggest that those quadrillions of future people have, accordingly, hundreds of thousands of times more moral weight than those of us living here today do. That’s the basic argument behind Nick Beckstead’s 2013 Rutgers philosophy dissertation, “On the overwhelming importance of shaping the far future.” It’s a glorious mindfuck of a thesis, not least because Beckstead shows very convincingly that this is a conclusion any plausible moral view would reach. It’s not just something that weird utilitarians have to deal with. And Beckstead, to his considerable credit, walks the walk on this. He works at the Open Philanthropy Project on grants relating to the far future and runs a charitable fund for donors who want to prioritize the far future. And arguments from him and others have turned “long-termism” into a very vibrant, important strand of the effective altruism community. But what does prioritizing the far future even mean? The most literal thing it could mean is preventing human extinction, to ensure that the species persists as long as possible. For the long-term-focused effective altruists I know, that typically means identifying concrete threats to humanity’s continued existence — like unfriendly artificial intelligence, or a pandemic, or global warming/out of control geoengineering — and engaging in activities to prevent that specific eventuality. But in a set of slides he made in 2013, Beckstead makes a compelling case that while that’s certainly part of what caring about the far future entails, approaches that address specific threats to humanity (which he calls “targeted” approaches to the far future) have to complement “broad” approaches, where instead of trying to predict what’s going to kill us all, you just generally try to keep civilization running as best it can, so that it is, as a whole, well-equipped to deal with potential extinction events in the future, not just in 2030 or 2040 but in 3500 or 95000 or even 37 million. In other words, caring about the far future doesn’t mean just paying attention to low-probability risks of total annihilation; it also means acting on pressing needs now. For example: We’re going to be better prepared to prevent extinction from AI or a supervirus or global warming if society as a whole makes a lot of scientific progress. And a significant bottleneck there is that the vast majority of humanity doesn’t get high-enough-quality education to engage in scientific research, if they want to, which reduces the odds that we have enough trained scientists to come up with the breakthroughs we need as a civilization to survive and thrive. So maybe one of the best things we can do for the far future is to improve school systems — here and now — to harness the group economist Raj Chetty calls “lost Einsteins” (potential innovators who are thwarted by poverty and inequality in rich countries) and, more importantly, the hundreds of millions of kids in developing countries dealing with even worse education systems than those in depressed communities in the rich world. What if living ethically for the far future means living ethically now? Beckstead mentions some other broad, or very broad, ideas (these are all his descriptions): Help make computers faster so that people everywhere can work more efficiently Change intellectual property law so that technological innovation can happen more quickly Advocate for open borders so that people from poorly governed countries can move to better-governed countries and be more productive Meta-research: improve incentives and norms in academic work to better advance human knowledge Improve education Advocate for political party X to make future people have values more like political party X ”If you look at these areas (economic growth and technological progress, access to information, individual capability, social coordination, motives) a lot of everyday good works contribute,” Beckstead writes. “An implication of this is that a lot of everyday good works are good from a broad perspective, even though hardly anyone thinks explicitly in terms of far future standards.” Look at those examples again: It’s just a list of what normal altruistically motivated people, not effective altruism folks, generally do. Charities in the US love talking about the lost opportunities for innovation that poverty creates. Lots of smart people who want to make a difference become scientists, or try to work as teachers or on improving education policy, and lord knows there are plenty of people who become political party operatives out of a conviction that the moral consequences of the party’s platform are good. All of which is to say: Maybe effective altruists aren’t that special, or at least maybe we don’t have access to that many specific and weird conclusions about how best to help the world. If the far future is what matters, and generally trying to make the world work better is among the best ways to help the far future, then effective altruism just becomes plain ol’ do-goodery.\*

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#### Russia’s international ambitions are low now due to space sector failures. AFP 19

AFP 5/28/19 (Agence France-Presse - international news agency headquartered in Paris, “Moscow, we have a problem: theft plagues Russia’s space sector,” https://www.scmp.com/news/world/russia-central-asia/article/3012088/moscow-we-have-problem-theft-plagues-russias-space)

With millions of dollars missing and officials in prison or fleeing the country, Russia’s space sector is at the heart of a staggering embezzlement scheme that has dampened ambitions of recovering its Soviet-era greatness. For years, Moscow has tried to fix the industry that was a source of immense pride in the USSR. While it has bounced back from its post-Soviet collapse and once again become a major world player, the Russian space sector has recently suffered a series of humiliating failures. And now, massive corruption scandals at state space agency Roscosmos have eclipsed its plans to launch new rockets and lunar stations. “Billions (of roubles) are being stolen there, billions,” Alexander Bastrykin, the powerful head of Russia’s Investigative Committee – Russia’s equivalent of the FBI – said in mid-May. Investigations into corruption at Roscosmos have been ongoing “for around five years and there is no end in sight,” he added. In the latest controversy, a senior space official appears to have fled Russia during an audit of the research centre he headed. Yury Yaskin, the director of the Research Institute of Space Instrumentation, left Russia for a European country in April where he announced his resignation, the Kommersant paper reported. He feared the discovery of malpractice during an inspection of the institute, according to the newspaper’s sources. Roscosmos confirmed that Yaskin had resigned but did not clarify why. His Moscow institute is involved in developing the Russian satellite navigation system GLONASS designed to compete with the American GPS system. Corruption has particularly affected Russia’s two most important space projects of the decade: GLONASS and the construction of the country’s showpiece cosmodrome Vostochny, built to relieve Moscow’s dependence on Baikonur in ex-Soviet Kazakhstan. Almost all major companies in the sector, including rocket builders Khrunichev and Progress, have been hit by financial scandals that have sometimes led to prison sentences for large-scale fraud. Russia’s Audit Chamber, a parliamentary body of financial control, estimated that 760 billion roubles (around US$11.7 million) was misappropriated from Roscosmos in 2017, or nearly 40 per cent of the total misappropriated from the entire economy that year. Roscosmos said that “eradicating corruption” is one of its “primary goals”, adding that it regularly cooperates with investigations by the authorities. In mid-April, President Vladimir Putin stressed the need to “progressively resolve the obvious problems that slow down the development of the rocket-space sector.” “The time and financial frameworks to realise space projects are often unjustified,” the Russian leader Rebooting the space sector is a matter of prestige for the Kremlin. It symbolises its renewed pride and ability to be a major global power, especially in the context of increased tensions with the United States.

#### Space cooperation with the U.S. boosts Russia’s diplomatic leverage and international prestige

Juul 19 (Peter - senior policy analyst at the Center for American Progress, “Trump’s Space Force Gets the Final Frontier All Wrong,” 3/20/19, <https://foreignpolicy.com/2019/03/20/trumps-space-force-gets-the-final-frontier-all-wrong/>)

But funding isn’t everything, and in the new geopolitical context, democracy must be seen to work effectively. When it comes to space exploration, that means ratcheting back U.S. space cooperation with Russia as well as forgoing any equally intimate cooperation with China and its secretive space agency. The fact that the head of Russia’s space agency remains under U.S. sanctions for his role in Moscow’s military intervention in Ukraine illustrates the hazards involved in working with autocracies in space. Deep cooperation with autocratic powers in space gives autocracies a major point of diplomatic leverage over the United States, and more generally allows them to poach unearned international prestige by working on goals set and largely carried out by the United States. In today’s world, there’s no reason for the United States to give Russia or China this sort of standing by association.

#### Increased international prestige lays the foundation for Russian territorial expansion and foreign policy aggression

Gurganus 19 (Julia - nonresident scholar with the Russia and Eurasia Program at the Carnegie Endowment for International Peace & Eugene Rumer - senior fellow and the director of Carnegie’s Russia and Eurasia Program, “Russia’s Global Ambitions in Perspective,” 2/20/19, https://carnegieendowment.org/2019/02/20/russia-s-global-ambitions-in-perspective-pub-78067)

. Elsewhere, long-term conflicts, such as those in Afghanistan, Iraq, and Libya, or the unfinished business of post-conflict reconstruction, such as in the Balkans, have presented Russia with opportunities to insert itself and create new facts on the ground. In the United States and Europe, growing political divisions, the proliferation of information providers, and popular frustration with governing elites in the wake of the 2008 global financial crisis have exposed targets for Russian interference. Russian agents did not cause these long-term conflicts or cleavages inside Western societies, but they have used them to advance their goals, which vary depending on the circumstances. In many instances, the Kremlin has relied on a diverse toolkit that creates the appearance of operating one step removed from the Russian government (through a range of actors including state-owned corporations such as Rosatom and Rosneft, private security companies such as the Wagner Group, organized crime syndicates, hackers, and information operation organizations such as the Internet Research Agency). Western perceptions of post-Soviet Russia have been heavily affected by the country’s economic and political implosion and foreign policy retreat during the 1990s. Against that backdrop, the ambition and dynamism of Russian foreign policy since Putin’s 2012 return to the presidency appears to be a relatively new phenomenon. It isn’t. Moscow’s post-2012 foreign policy fits comfortably in the long-standing historical and intellectual tradition of Soviet and even pre-Soviet Russian foreign policy. THE TROIKA OF RUSSIAN FOREIGN POLICY Contemporary Russian foreign policy displays the unmistakable presence of three centuries-old drivers of Moscow’s posture on the world stage. Chief among these drivers is Russia’s quest for strategic depth and secure buffers against external threats, which, considering the country’s geography and absence of natural protective barriers between it and neighboring powers, has guided its geographic expansion. Along with physical insecurity and expansion, the second key driver of Russian foreign policy has been its ambition for recognition as a great power, which the Kremlin has long seen as necessary for legitimizing its geographic conquests and geopolitical ambitions. The third driver, related to the first two, is Russia’s complicated relationship with the West, which combines rivalry with the need for cooperation. These recurrent themes are important. They highlight the degree to which Russian foreign policy in the Putin era is a continuation of many pursuits that are, by turns, decades- and centuries-old and were embraced by previous Russian governments regardless of their political persuasion. The historical record also performs an important legitimizing function for the citizens of the Russian state, which is less than three decades old, cementing the state’s claim to be the heir to a long, illustrious tradition dating back centuries. References to this tradition thus legitimize the Putin government’s ambitious overseas pursuits and present them as a matter of historical continuity and as an integral part of what Russia is. GEOGRAPHY AND STRATEGIC DEPTH It is hard to overestimate the role of geography as a driver behind Russia’s foreign policy. The Russian state and its security policy have been shaped by the absence of natural geographic barriers—oceans, rivers, or mountains.2 Geography has shaped Russian identity and its rulers’ understanding of security throughout the entire existence of the Russian state. Throughout the centuries, contemporary Russia, the Soviet Union, imperial Russia, and the principality of Muscovy have all faced the challenge of securing a vast stretch of territory from neighbors perceived to be hostile to the west, south, and east. To secure its territory, the Russian state acquired more territory, which, in turn, had to be secured from ever-present external threats of one kind or another. In the words of historian Stephen Kotkin, “Whatever the original causes behind early Russian expansionism—much of which was unplanned—many in the country’s political class came to believe over time that only further expansion could secure the earlier acquisitions. Russian security has thus traditionally been partly predicated on moving outward, in the name of preempting external attack.”3 The loss of territory, as was the case after the two great dislocations Russia experienced in the twentieth century—first after the 1917 revolution and the 1918 Brest-Litovsk Treaty, and later after the 1991 breakup of the Soviet Union—resulted in a profound sense of Russian insecurity and a renewed quest to regain strategic depth. Regaining that depth was the key task of the Soviet government as soon as the country began to recover from the trauma of the revolution and the civil war, and again after Moscow regained a measure of strength after the collapse of the 1990s. GREAT POWER AMBITIONS The quest for recognition as a great power has been both the result of Russia’s geographic expansion and its driver. Geographic expanse was and is, in the eyes of Russian leaders, central to their claim to recognition as a great power. Such recognition, in turn, has been needed to lend a veneer of legitimacy to territorial conquests. Perhaps precisely because they have had to struggle repeatedly for such recognition, Russia’s rulers have been particularly sensitive to any suggestion that Russia does not belong in the ranks of major powers. In the mid-nineteenth century, Russian historian and writer Nikolay Danilevsky complained about Russia’s unfair treatment by Europe, which had turned a blind eye to Prussian and Austrian aggression against Denmark following the annexation of two Danish provinces yet criticized Russia’s efforts to protect the rights of its coreligionists in “barbaric” Turkey.4 Danilevsky’s complaint was, in effect, a precursor of Putin’s lament about the West’s double standards in dealing with Russia’s annexation of Crimea and the severing of Kosovo from Serbia.5 For the leaders of the independent Russia that emerged from the Soviet collapse, the Soviet and Russian imperial legacy appeared to serve as both an inspiration and a justification for their claim to great power status. They found ample philosophical rationales for their claim. In the words of noted Russian political philosopher Nikolai Berdyaev, empire and great power status constitute the essence of Russian identity even when the country is experiencing challenges and setbacks, in large part because of its spiritual and material wealth.6 As early as 1993, the official Foreign Policy Concept of the Russian Federation included, among other foreign policy priorities, the objectives of “furthering integration of the Commonwealth of Independent States” and ensuring Russia’s active role on the world stage as a “great power.”7 With Primakov’s rise to the helm of the Russian foreign policy establishment in 1996, great power ambitions again became the Kremlin’s driving force. In his first news conference as foreign minister, Primakov said, “Despite the present difficulties, Russia was and is a great power and its foreign policy should correspond with that.”8 Putin embraced this vision when he became president in 2000, and it has served as a cornerstone of his leadership ever since. Of particular importance to the Putin government has been the military record of the Russian state and its numerous conquests. Putin issued a presidential order in 2012 reconstituting the Russian Military-Historical Society.9 Long-serving Russian Culture Minister Vladimir Medinsky has been an active patron of the society as well. The expansion of the Russian state by force of arms—including numerous victories over Poland, Sweden, the Ottoman Empire, and Central Asia—make up an integral part of the foundational narrative of the contemporary Russian state. This narrative is reinforced by a sprawling state propaganda apparatus, official government activities, and educational curricula. Several historical events are featured prominently in this narrative. Russia’s defeat of Napoleon has been treated as a uniquely important event because of its significance to the European order in the nineteenth century, as well as for being an accomplishment that cemented Russia’s status as a great power. The victory over Nazi Germany in World War II is treated as the crowning achievement of the Soviet state, which saved not just the Soviet Union and Europe but the whole world from fascism. This triumph presently makes up the most important part of Russia’s national narrative. As a whole, this legacy provides both the justification and the motivation for Russia to pursue its ambitions not just around its vast periphery but well beyond its shores. UNEASY RELATIONS WITH THE WEST Moscow’s uneasy relationship with the West for centuries has been one of the most prominent features of its foreign policy. On the one hand—from Peter the Great’s founding of the new Russian capital on the Baltic shores to Catherine the Great’s engagement with leading European Enlightenment thinkers of the day, Czar Alexander I’s securing Russia’s place in the circle of major European powers to Joseph Stalin’s consolidation of the Soviet Union’s hold on Eastern Europe—Russia long has been an integral part of Europe and its political and security fabric. On the other hand, throughout Russian history since the time of Peter the Great, Russian elites, political thinkers, and cultural figures have questioned Russia’s European choice and relationship with Europe. In a more recent and very telling sign of that ambivalence, Foreign Minister Lavrov wrote in 2016 that, over the centuries, Russia has seen itself as part of Europe and the West, as better than the West, as different and unique from the West, and as representing a crucial link between the East and the West.10 The biggest obstacle that has kept Russia from having a closer and more stable relationship with Europe, according to Lavrov, has been Europe’s inability or unwillingness to simply let Russia be Russia, and its insistence on having Moscow conform to European norms—something that no Russian leader or the people of Russia would ever accept. Moscow’s claim to great power status has derived from its victories in the West, against Napoleon and Hitler. But Russia’s biggest setbacks too have been delivered by the West—in the Crimean War and in the Cold War—and these setbacks remain the biggest drivers of Moscow’s security and defense policy.11 As was the case during the Cold War, Russian policy toward the West has long had an important ideological dimension. During the Soviet era, the ideological competition was between Soviet communism and democratic capitalism. After a relatively brief period when Russia attempted to join the West, Moscow has embraced an overtly anti-Western ideology. Communism has been replaced by a mix of nationalist, authoritarian, and state-capitalist ideas as an alternative to the West’s notion of liberal democratic capitalism. The concept of Russia as a besieged fortress facing hostile Western designs and influences is a key tool the regime uses to mobilize the political support of Russian elites and ordinary citizens alike. OLD HABITS DON’T DIE In addition to a legacy of complicated geopolitics, great power ambitions, and a difficult relationship with the West, the new Russian state has inherited from its Soviet predecessor a time-tested foreign policy toolkit. While some elements of this toolkit fell into disuse early in the post-Soviet period when Russia was struggling with a series of domestic crises, these tools have been taken up again by the country’s foreign policy and national security establishment as Moscow has returned to the world stage as an increasingly assertive actor. George Kennan wrote in “The Sources of Soviet Conduct”: . . . the Kremlin is under no ideological compulsion to accomplish its purposes in a hurry . . . and it can afford to be patient. These precepts are fortified by the lessons of Russian history: of centuries of obscure battles between nomadic forces over the stretches of a vast unfortified plain. Here caution, circumspection, flexibility and deception are the valuable qualities . . . Its [the Soviet Union’s] political action is a fluid stream which moves constantly, wherever it is permitted to move, toward a given goal. . . . The main thing is that there should always be pressure, unceasing constant pressure, toward the desired goal. There is no trace of any feeling in Soviet psychology that that goal must be reached at any given time.12 Russian foreign policy in the Putin era fits Kennan’s description from more than half a century ago. The Kremlin’s approach has involved the relatively low-cost, limited use of military force in combination with other nonmilitary instruments of national power. Information operations, propaganda and disinformation, cyber operations, trade embargoes, and a vast array of other tools have been integrated into what has become commonly known as hybrid warfare. The current policy discussions in Western capitals often create the impression that Moscow has come up with a fundamentally new toolkit. In reality, an extensive reliance on such tools has long been a feature of Russian domestic politics and foreign policy.

#### Russian territorial expansion causes nuclear war with the U.S. and NATO

O’Hanlon 19 (Michael – PhD from Princeton in Public and International Affairs and currently a senior fellow at the Brookings Institute, “The Senkaku Paradox: Risking Great Power War Over Small Stakes,” p. 34-37, 4/30/19, Dartmouth Libraries)

As such, the United States and NATO partners would undoubtedly feel intense pressure, at the first sign of visible preparations for attack by Russia, to disable Russia’s surveillance and command and control capabilities and to preempt any missiles or aircraft or submarines before they could get within range of the target. That could, of course, entail direct attacks against airfields, ports, and other facilities on Russian soil, not just those that happened to be directly involved in the Baltic state occupation. In other words, NATO might strike first, rather than leave itself vulnerable to ambush. In light of the alliance’s consensus decision-making procedures, that possibility seems unlikely—but it must also be remembered that this scenario is premised on a situation in which Russian forces occupy at least a small swath of NATO territory, so certain thresholds would already have been crossed by enemy action. Regardless, the stage would be set for an extremely dangerous dynamic. If any initial conventional engagements went against its interests, Russia might also consider limited nuclear employment options. Indeed, some of its strategists currently entertain an “escalate to de-escalate” concept that would attempt to intimidate NATO allies into reversing their plans. Russia might detonate a nuclear weapon high in the atmosphere to create a powerful nuclear-induced electromagnetic pulse (EMP) that could prove lethal to air defense radars, military communications systems, and much civilian infrastructure over a region many hundreds of kilometers in radius. A Russian EMP burst using a high-altitude nuclear weapon would be an extremely provocative and risky move, to be sure.57 But some Russian leaders could argue that it was not strictly speaking a nuclear attack, since no humans would be killed by the direct explosive effects of such a weapon—and thus might delude themselves into thinking it was a relatively low-risk option. In fact, the risks could be very high. Some types of EMP attacks (or even cyberattacks) by Russia could disable large chunks of the U.S. or European electricity grids for many months.58 A severe attack of this type might even lead to a U.S. nuclear response, in light of the new nuclear doctrine of the Trump administration.59 Beyond the EMP option, Russia could use nuclear weapons directly against ships that carried military equipment, missile defense radars, or other capabilities. Indeed, it threatened to target nuclear missiles at any Danish ships joining the U.S.-led missile defense effort in 2015. Again, the provocation would be enormous—but the direct human stakes might be fairly limited, since only dozens of sailors, or at most a couple hundred, might be on a given naval vessel.60 Moscow might, perhaps delusionally, think the risks were acceptable. Of course, there would be enormous significance and risk to crossing the nuclear threshold in any way. But if weapons were used against isolated military targets (as both sides contemplated in various ways during the Cold War), Moscow again might convince itself, rightly or wrongly, that escalation risks could be tolerated and managed. That might be particularly true for attacks limited to the kinds of target sets that posed disproportionate vulnerability and dependence for NATO. These could include cargo ships at sea, rail marshaling yards where train tracks change gauge (necessitating unloading and reloading) at the Poland-Lithuania border, or particularly weak bridges without nearby alternative routes.61 If Russia could limit NATO fatalities to hundreds of sailors and not itself present any target sets that were characterized by a similar combination of relatively high military importance and relatively great separation from vulnerable civilian populations, NATO might not have a good recourse. Moscow might hope as much, at least—and so elect to roll the dice. Such a decision would be reckless and foolish, but perhaps not beyond the pale of how human beings have behaved historically in wars they felt they were otherwise likely to lose. The Outcome of the Scenario: Toward a Net Assessment With all these factors in motion, how would this kind of conflict likely play out? A NATO military response to the postulated Russian aggression seems very likely. Perhaps evidence of its preparations to move forces into position to defend its ally and liberate its territory from Russian occupation would be enough to catalyze a diplomatic resolution of the crisis. If not, however, the stage would be set for the possible eruption of World War III. Russia might try to impede a deployment through cyber-, space, and other such attacks, which would likely only slow the deployment, not stop it. Thus escalation could easily result.62 Once shots were fired, NATO would be unlikely to back down. Not every nation would necessarily send significant military forces, to be sure, but some key countries would probably remain resolute. Much more likely than acceptance of defeat would be a redoubled commitment to complete the mission—and, if Russian nuclear weapons had been used by that point, even in a limited attack, to respond in kind. Put differently, if Russia did choose to try to physically prevent the deployment of large forces into eastern NATO territory in likely preparation for a counterattack, there would be two possibilities. If that attempt failed, a showdown in the east on land would still loom. If it succeeded, NATO would then face a momentous decision: accept defeat, or reinforce dramatically with conventional forces (perhaps after a period of repairing damage and building more equipment and weaponry, depending on how many losses it had already suffered), or escalate to the nuclear level. In situations of this sort, the parties to the conflict might find themselves living scenarios like those that nuclear theorists pondered throughout the Cold War. They could be engaged in behavior that Thomas Schelling might have described as “the threat that leaves something to chance” or that Herman Kahn might have placed on the lower rungs of a nuclear escalation ladder that reached potentially to all-out war.63 American planners saw these kinds of escalatory ladders and options as ideas that might serve U.S. interests; thus it would not be too surprising to see Russian planners invoke them now.64 And whatever the dangers during the deployment phase, they would snowball during any actual maneuver warfare in eastern Europe. For example, it is entirely imaginable that an operation designed to liberate a Baltic state from a Russian occupation would trespass onto Russian territory to cut off supply lines and possible reinforcements.65 Moscow may or may not simply take NATO’s word that it has no designs on the country’s government. In other words, it might even fear that NATO’s counteroffensive could aspire to regime change in Russia. It may or may not have a clear picture of the kind of attack it is experiencing, as command and control systems would be compromised in the course of conventional battle, quite possibly including those systems commonly used for nuclear weapons.66 I conclude that, for a hypothetical conflict occurring sometime in the near future, enough uncertainties exist to make the outcome of the war somewhat unpredictable. One cannot simply assert that NATO’s numerous advantages guarantee a victory. The Baltics’ exposed geographic location, NATO’s limited means of deploying reinforcements to the region reliably, Russia’s options in domains ranging from cyberspace to outer space, and the possible use of nuclear weapons even in just a limited, tactical role make it uncertain that NATO could confidently expect victory despite collectively outspending Russia by more than ten to one in the military arena. For example, it is not clear that the United States could safely send most of its major ocean transport vessels to ports of debarkation and unload supplies there in the face of a conventional military threat. And if it lost a substantial fraction of its top-line supplies and ships to Russian attacks in its first attempt, the United States might need time to prepare for a second effort, which might then have to begin further west in Europe where disembarking and marshaling of forces could be carried out more safely, before those forces gradually made their way eastward. NATO would probably win such a conventional war, but it could take many months or even years. And even then, the deep uncertainties associated with possible nuclear escalation make it unclear whether victory could even be meaningful. Few would say that a few thousand square kilometers of Baltic territory logically warrant nuclear risks. But human beings are not always logical. Nuclear brinkmanship over a limited-war scenario in eastern Europe would not be unthinkable, based on what we know of history and human nature. And if nuclear weapons were ever used, even in small numbers at first, all bets are off as to where and how the conflict would end.

## Case

#### 1. Psychoanalysis is infinitely regressive, not falsifiable, and too abstract.

Gordon ‘1 – Paul Gordon, accomplished psychotherapist, “Psychoanalysis and Racism: The Politics of Defeat,” RACE & CLASS v. 42 n. 4, 2001, pp. 17-34.

But in the thirty years since Kovel wrote, that attempt to relate mind and society has been fractured by the advent of postmodernism, with its subsumption of the material/historical, of notions of cause and effect, to what is transitory, contingent, free-¯oating, evanescent. Psychoanalysis, by stepping into the vacuum left by the abandonment of all metanarrative, has tended to put mind over society. This is particularly noticeable in the work of the Centre for New Ethnicities Research at the University of East London, which purports to straddle the worlds of the academy and action by developing projects for the local community and within education generally.28 But, in marrying psychoanalysis and postmodernism, on the basis of claiming to be both scholarly and action oriented, it degrades scholarship and undermines action, and ends in discourse analysis a language in which metaphor passes for reality. Cohen's work unavoidably raises the question of the status of psycho- analysis as a social or political theory, as distinct from a clinical one. Can psychoanalysis, in other words, apply to the social world of groups, institutions, nations, states and cultures in the way that it does, or at least may do, to individuals? Certainly there is now a considerable body of literature and a plethora of academic courses, and so on, claim- ing that psychoanalysis is a social theory. And, of course, in popular discourse, it is now a commonplace to hear of nations and societies spoken of in personalised ways. Thus `truth commissions' and the like, which have become so common in the past decade in countries which have undergone turbulent change, are seen as forms of national therapy or catharsis, even if this is far from being their purpose. Nevertheless, the question remains: does it make sense, as Michael Ignatieff puts it, to speak of nations having psyches the way that individuals do? `Can a nation's past make people ill as we know repressed memories sometimes make individuals ill? . . . Can we speak of nations ``working through'' a civil war or an atrocity as we speak of individuals working through a traumatic memory or event?' 47 The problem with the application of psychoanalysis to social institutions is that there can be no testing of the claims made. If someone says, for instance, that nationalism is a form of looking for and seeking to replace the body of the mother one has lost, or that the popular appeal of a particular kind of story echoes the pattern of our earliest relationship to the maternal breast, how can this be proved? The pioneers of psychoanalysis, from Freud onwards, all derived their ideas in the context of their work with individual patients and their ideas can be examined in the everyday laboratory of the therapeutic encounter where the validity of an interpretation, for example, is a matter for dialogue between therapist and patient. Outside of the consulting room, there can be no such verification process, and the further one moves from the individual patient, the less purchase psychoanalytic ideas can have. Outside the therapeutic encounter, anything and everything can be true, psychoanalytically speaking. But if everything is true, then nothing can be false and therefore nothing can be true. An example of Cohen's method is to be found in his 1993 working paper, `Home rules', subtitled `Some re¯ections on racism and nation- alism in everyday life'. Here Cohen talks about taking a `particular line of thought for a walk'. While there is nothing wrong with taking a line of thought for a walk, such an exercise is not necessarily the same as thinking. One of the problems with Cohen's approach is that a kind of free association, mixed with deconstruction, leads not to analysis, not even to psychoanalysis, but to . . . well, just more free association, an endless, indeed one might say pointless, play on words. This approach may well throw up some interesting associations along the way, connections one had never thought of but it is not to be confused with political analysis. In `Home rules', anything and everything to do with `home' can and does ®nd a place here and, as I indicated above, even the popular ®lm Home Alone is pressed into service as a story about `racial' invasion.

#### 2. Making impactful contributions demands causal policy relevance AND methodological pluralism -- that is the only way to draw accurate contextual conclusions and prevent violent, imprecise reification.

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I want to reiterate that I am not arguing that scholarship that is formal or quantitative is by definition irrelevant. Indeed, one can point to examples of both that are. When applied to economic issues, the discipline of economics has managed to be both highly “scientific” and, at times, quite relevant, though for both good and ill. Likewise, there are examples of highly quantitative political science that policymakers have found useful.1 Finally, there is much nonquantitative scholarship, particularly but not exclusively in the humanities that, is jargon laden and otherwise inaccessible to a wider audience, including government policymakers.2 This is by no means an anti-social science methods screed, just a reminder of the tensions between rigor and relevance that need to managed rather than assumed away. Nor is this in any way a brief against theory. Former State Department official Roger Hilsman reminded us that everyone, including policymakers, uses theory. Paraphrasing John Maynard Keynes, he concluded that “it seems obvious that all thinking involves notions of how and why things happen. Even the ‘practical’ man who despises theory has a number of assumptions and expectations which lead him to believe that when certain things are done, certain results follow.. . .It is this ‘theory’ that helps a problem solver select from the mass of facts surrounding him those which he hopes are relevant.”3 Given that, I fully associate myself with Hans Morgenthau’s balanced view that “theory without verification is metaphysics, but empiricism without theory is aimless.”4 Since policymakers implicitly use theory in analyzing situations and assessing their alternatives, such theories should be stated explicitly and analyzed systematically, which is a comparative advantage of the scholars. Instead, what I offer is simply a critique of the increasing tendency of many social scientists to embrace methods and models for their own sake rather than because they can help us answer substantively important questions. This inclination is in part the result of the otherwise normal and productive workings of science, but is also reinforced by less positive factors such as organizational self-interest and intellectual culture. As a result of the latter, many political scientists have committed themselves to particular social science methods not so much because they believe they will illuminate real-world policy problems but because they serve a vested interest in disciplinary autonomy and dovetail with a particular image (mathematized and model-based) of what a “science” of politics should look like. In other words, the professionalization of social science is the root of the enduring relevance question. This tendency to equate rigor with technique imposes costs on the rest of society as well as the discipline, especially when it excludes a more balanced approach to rigor and relevance of the sort that characterized the subfield of security studies in the past. On the former, as diplomat George Kennan rightly observed, policymakers need academic expertise because they have to make decisions about issues and areas of the world “about which they cannot be expert and learned.”5 They depend on the academy for the raw data—whether quantitative or historical—that they use in decision making. They also rely on the social sciences for the theories they use to analyze and make sense of this data. The problem with relying exclusively on in-house government research to make up for the lack of policy-relevant academic research is that it is often of low quality. The role of the “independent policy analyst” is essential for three reasons: 6 He or she can challenge basic policy assumptions. As RAND’s Hans Spier put it, they can undertake “research which does not necessarily take the mission of the military for granted and admits the possibility U.S. may be wrong”7 And academic social scientists are particularly well suited to this role by virtue of the fact that they both conduct research and also teach future policymakers. Academics have some other advantages over policymakers. They have the time to develop greater depth of knowledge on issues and regions than most policymakers can. The institution of tenure also gives them, at least in theory, the freedom to explore controversial issues and take unpopular stands. And while peer review can homogenize and narrow scholarship, it also plays an indisputably positive role in advancing it. Finally, university-based scholars have less of a vested interest in certain policies and programs than do policymakers, though of course that is not to deny that they have their own institutional interests and biases.9 I am not suggesting, of course, that scholars would make better policy than bureaucrats and elected officials. They lack inside knowledge, have little actual power, and are often politically out of step with the rest of American society.10 They also come to policy issues with a markedly different intellectual orientation than policymakers.11 Rather, my point is simply that our democratic political system depends on the successful functioning of the marketplace of ideas and checks and balances in which individuals and groups with various strengths and weaknesses and offsetting biases participate in the larger policy debate, thereby compensating for each other’s limitations.12 We run into trouble when we lack one of these perspectives in policy debates. Indeed, there are instances—the war in Vietnam and the recent Iraq War—in which had the majority consensus of scholars in academia influenced policy, the country’s national interest would have been better served. As the flawed Iraq War debate demonstrates, our nation’s marketplace of ideas is bankrupt, particularly in national security affairs.13 Of course, our political problems run much deeper than just the Beltway/Ivory Tower gap, but closing it would represent an important step in the country’s intellectual recapitalization. This nation’s universities need to reclaim their place as one of society’s main sources of independent ideas about the problems that it faces.14 Less widely recognized, and perhaps more controversial given the prevailing sentiments in the Academy for a sharp distinction between “science” and “policy,” is my contention that the growing gap is ultimately bad for the generation of new knowledge. There are at least two reasons why greater attention to policy relevance produces better scholarship. First, it leads to more realistic theorizing. As John Kenneth Galbraith warned his economics colleagues nearly forty years ago, “No arrangement for the perpetuation of thought is secure if that thought does not make contact with the problems that it is presumed to solve.”15 Second, a focus on manipulatable variables makes it more likely that they are testable because the analyst can ensure variation on them. Also, the hyperspecialization of knowledge today makes it difficult for even scholars in related disciplines to understand each other, much less the general public. Such intellectual fragmentation makes the application of scholarly knowledge to policymaking extremely difficult. Therefore, a deeper and more regular engagement between the Ivory Tower and the Beltway will be mutually beneficial for both sides.16 Ultimately, even the most sophisticated social science will be judged by what it tells us about things that affect the lives of large numbers of people and which policymakers therefore seek to influence and control.17 The recurrent congressional debates about National Science Foundation funding for political science highlight the direct costs to the discipline of not being able to justify itself in terms of broader impact on the rest of society. Harkening back to the debate about the Mansfield Amendment, an article in Science cautioned that “to the extent that the research community disdains work on major national missions or behaves self-servingly in mission-oriented work, anti-intellectualism will increase its influence on the fate of American science.”18 Also, public and philanthropic community support for investment in academia generally reflects the belief that it will produce work that will speak to problems of broader importance. When the academy fails on that score, it can undermine that support.19 Political science’s subfield of international security studies can plausibly claim to save large amounts of money and even lives and so its increasing marginalization is a self-inflicted wound on the discipline. Response to Objections There are at least eight reasonable, though ultimately unpersuasive, objections to my argument that we should consider. First, some point to the influence of the Democratic Peace Theory (DPT) on the Clinton, George W. Bush, and Obama administrations as evidence that one of the most scientific of social science theories in international relations was both useful and influential among policymakers.20 The argument that democracies are unlikely to go to war with each other gained currency among social scientists based on statistical analysis of every major interstate war since 1815. In the words of Rutgers political scientist Jack Levy, the Democratic Peace Theory is “as close as anything we have to an empirical law in international relations.”21 Two scholars argued that the theory became relevant outside of the academy precisely “because of the law-like status of a particular empirical finding.”22 Others hold it up as a model of how basic research in political science can contribute to policymakers.23 It is not clear, though, that the influence of the DPT on recent U.S. foreign policy was due to its unassailable social scientific standing. While former Defense Department official and Ohio State political scientist Joseph Kruzel conceded that DPT “had substantial impact on public policy,” he attributed its attractiveness to policymakers to its simplicity rather than its social scientific rigor.24 It clearly identifies America’s enemies (nondemocratic states) and prescribed a simple response to them (make them democratic). It is also likely that the much less methodologically sophisticated articulation of the theory in the work of Michael Doyle was far more influential.25 And the process by which DPT entered the Clinton White House did not involve sophisticated social science. Rather, the key administration proponent of the democratic peace was National Security Advisor (and former college professor) Anthony Lake.26 It is clear, however, that to the extent that Lake was drawing support for the democratic peace from academic sources, it was not from statistically based research, but rather from the qualitative work of scholars like Harvard’s Samuel Huntington.27 The results of a survey of senior national security policymakers found that more than half of those familiar with the methodologically sophisticated democratic peace theory reported not being influenced by it in their government work.28 Finally, one could argue that U.S. policymakers have embraced the democratic peace because of its compatibility with our political culture rather than its scientific standing.29 A second, and in some ways, flip side of the first critique, is that the relevance problem with contemporary security studies is the result of the subfield’s domination by realism, and particularly its most abstruse and theoretical manifestation, neorealism.30 Critics point particularly to neorealist arguments that tout the virtues of nuclear proliferation as examples of theoretically elegant but politically unacceptable social science.31 Despite its respectability among scholars, neorealist proliferation optimism has reportedly had little influence on actual policy.32 While that particular policy issue may not have been influenced by realist thinking, as this book has shown realists have remained committed to policy relevance at times when the rest of the discipline has eschewed it. And they have more often been on the right side of policy debates as well.33 A third potential challenge to my argument is that many social scientists believe that they should avoid offering policy recommendations in favoring of focusing on basic research tasks such as identifying empirical regularities and offering generalizations to explain them.34 As Dartmouth political scientist Kalman Silvert warned, “It is not the legitimate role of the social scientist as scholar to advocate specific courses of governmental action or to act as implementer of government decisions.”35 Another rationale is that doing so is unnecessary given that the applied implications of basic research tend to trickle down by themselves.36 Policy engagement—particularly offering explicit policy recommendations—is both unwise and unnecessary in the view of many social scientists. Neither of these views, however, are shared by policymakers. Most believe that in addition to providing basic research findings, “scientists must explicitly define the linkage, whether immediate or remote, of the knowledge acquired or being acquired, to specific operational problems and continually assess the import of such knowledge to solution of the problems.”37 Nor are current and former policymakers sanguine about the trickle-down (or bubble-up in which senior policymakers get the results of scholarly work through their methodologically savvy staffs) process. As John K. Plank of the Brookings Institution, a former DoD official, recollected, “There is presumably a process whereby the research product is filtered up to [senior policymakers], but in point of fact very little of operational usefulness is transmitted.”38 Fourth, some political scientists believe that there are now so many new outlets for scholars to engage in the policy debate, it is both easier for them to do so and also unnecessary for them to concern themselves with doing so in their scholarship.39 Academics can now publish basic research in scholarly venues and then disseminate its applied implications through the new media. George Washington political scientist and blogger Marc Lynch effused that with the rise of the new media “this is in most ways a golden age for policy-relevant public spheres.”40 Indeed, many see the proliferation of new media outlets as the answer to political science’s perennial problem: its diminished public profile.41 The assumption here is that political scientists are simply not communicating their results effectively. There are three problems with these arguments: Until recently, we had no idea whether blogs and other new media reached policymakers. As one optimist conceded, we have “no solid statistics” on our impact.42 But we do now and it suggests that blogs and other new media are in fact not an important source of information for policymakers and therefore are unlikely to effectively convey the implications of basic research to policymakers, the media, or the general public.43 Moreover, even if a few blogs get some attention, many others do not, simply making more noise in an already cacophonous marketplace of ideas.44 And suggesting that the failure of communication argument misses the mark, Social Science Research Council president Craig Calhoun noted that scholarly “engagement with public constituencies must move beyond a dissemination model” that assumes that “pure research” will naturally triclde down, even with better communication.45 In other words, it is not the medium that matters as much as the message. And the message must be made more intelligible and useful to policymakers and the general public. Finally, there is systematic evidence that academic bloggers and scholars who utilize other new media venues receive little professional credit for them in the critical areas of promotion and tenure.46 In short, despite the explosive growth of new media outlets, professional incentives still do not encourage scholars to use them. A fifth conceivable objection is that advanced social science techniques and basic research will eventually become more useful to policymakers as they (or at least their staffs) become more sophisticated in their understanding of them. One optimist, for example, noted that most graduate public policy schools now include one or two required courses in economics and social science methods in their curricula. As these increasingly methodologically savvy young bureaucrats become senior policymakers, so this argument goes, they will be more adept at using them and more appreciative of their policy relevance.47 However, this argument assumes that training in advanced research techniques is a recent development. Policy schools, however, have long had methods courses as part of their required curriculum. Even prior to this, many national security policymakers came out of academic Ph.D. programs in which they were exposed to the latest innovations in social science methodology. It also ignores that the security studies subfield played a leading role in developing many of these sophisticated social science techniques, particularly at RAND in the 1950s.48 An example of the reverse flow of ideas from the policy world to the Academy was the “unquestionably” leading role that RAND mathematicians and other social scientists played in the development of game theory, a mathematical framework for strategizing under uncertainty.49 Despite early enthusiasm, many at RAND concluded that game theory had an Achilles Heel in its application to national security policy: how to assign the numerical values that were to be plugged into its formulas. That was not a trivial limitation, which led Hitch to confess that “for our purposes, Game Theory has been quite disappointing.”50 It also assumes that today’s aspiring policymakers come away from these methods courses with an unqualified appreciation of their usefulness. My experience after ten years in teaching in such schools, and familiarity with the evaluations students give these courses, leaves me skeptical. They often do not see the usefulness of such courses and suspect they are being forced to take them for academic, not professional, reasons.51 Other colleagues at professional schools share this impression.52 Finally, an earlier survey of current and former national security policymakers reveals that the more highly educated the policymaker, the greater the skepticism about their utility.53 This is consistent with the argument that familiarity with advanced techniques instills greater appreciation not only for their promise but also their limits. Even proponents of modern social science methods in international relations concede that “the emerging science of international relations has a long way to go before it can be of direct use to policy makers.”54 It is hard to find much evidence that the most sophisticated approaches to international relations are of much direct use to policymakers, and there are ample reasons for caution about how much of the discipline’s “basic” research is really trickling down to indirectly influence policymakers. Sixth, some point to the post-9 /11 resurgence of interest among younger social scientists as a harbinger of another renaissance of interest in policy relevance. Others suggest that changes in the nature of the “new paradigm of knowledge production,” which is “socially distributed, application-oriented, trans-disciplinary, and subject to multiple accountabilities” constitute grounds for optimism about a broader return to relevance among the social sciences.55 To be sure, there are reasons for optimism on this score but also for continuing caution. As we have seen, previous periods of optimism about answering the relevance question have given way to disappointment. Moreover, many scholars have claimed to be policy relevant even though policymakers did not find them so.56 As one CIA analyst warned, “Social scientists commonly define policy-relevant research far more broadly than the foreign policy community does.”57 A seventh potential criticism of my argument is there are other forms of “relevance” beyond just influencing government policymakers by offering policy recommendations to which scholars should aspire.58 Especially in a democratic political system, a scholar’s vocation for politics can also involve educating students and informing the wider public about pressing issues of policy. Moreover, an engaged scholar could serve with nongovernmental and private organizations rather than just through government service. While there is no doubt that policy influence is broader than just affecting government policy, that is ultimately the goal of the enterprise, either directly through policymakers or indirectly through the media or the public. Moreover, it is the clearest and most demanding standard of relevance available. So if we want to understand when and how social science matters to policymakers that is the most important, if not the only, aspect of it to consider.59 Finally, many political scientists share Daniel Drezner’s view that economics has solved the relevance question in being both rigorous and relevant. 60 The logical implication of such a belief is that the rest of social sciences should follow that discipline’s lead in terms of its approach and methodology. This economics envy is based on a misapprehension that academic trends in economics have not also created a relevance problem. For example, a recent review of research at the World Bank by leading academic economists raised questions about how much of the scholarship of bank analysts that was written for publication in academic journals was of any use to the bank.61 Their answer was not much. They blamed intellectual trends in the discipline because it encouraged research that was “too academic, too focused toward the previously existing academic agenda, and too directed towards technical rather than pressing policy issues.”62 Behind this economics envy lies an even deeper inferiority complex visa- vis the natural sciences. Many social scientists believe that the physical sciences have two advantages over the “softer” social sciences: more reliable data and a consensus on how to analyze it. Quantifiable data, in this view, is more persuasive, because it is clearer and less subject to dispute.63 This view of the superiority of the physical over the social sciences is widespread, with many of the former reveling in their preeminence and some of the latter manifesting two classic symptoms of an inferiority complex: resentment or reflexive emulation. Neither of these responses is healthy. It is simply not true that expressing propositions mathematically ensures that they are clearer and more transparent than conveying them in English. Economist Paul Romer admitted that “with enough math, an author can be confident that most readers will never figure out where FWUTV [facts with unknown truth values] is buried. A discussant or referee cannot say that an identification assumption is not credible if they cannot figure out what it is and are too embarrassed to ask.”64 On the latter, one would think that the 2008 Great Recession, in which the misguided belief that quantitative models of the economy could be used to guide investment decisions on the grounds they could reveal “the truth” about what drives the market, would temper confidence that such scientific approaches could ensure effective policy.65 In a much discussed essay in the New York Times Magazine, Princeton economist Paul Krugman concluded that “the economics profession went astray because economists, as a group, mistook beauty, clad in impressive-looking mathematics, for truth.. . . The central cause of the profession’s failure was the desire for an all-encompassing, intellectually elegant approach that also gave economists a chance to show off their mathematical prowess.”66 It is not even clear that natural scientists have been most influential when they have employed their most rigorous and mathematically sophisticated approaches, at least in the national security realm. Indeed, there is more evidence that they have been most influential when they have offered practical solutions to real-world problems. These solutions have often come from scientifically uncertain and incomplete data.67 These are the hallmarks of much of the best of qualitative social science. Social scientists also ought to take heart that they not only can make an important contribution using their own distinct approaches, but also that in some instances they might even be superior to those of the physical scientists. For example, many of the nuclear scientists involved in the Manhattan Project soon came to regret their role in the escalating nuclear arms race of the Cold War. Reflecting a collective sense of guilt, chemist and peace activist Linus Pauling got almost nine thousand scientists to sign a January 1958 petition to end nuclear testing as first step toward universal disarmament.68 Talcing an equally impractical tack, Hungarian physicist Leo Szilard wrote to Franldin Delano Roosevelt’s science adviser Vannevar Bush in January 1944, “This weapon is so powerful that there can be no peace if it is simultaneously in the possession of any two powers unless these two powers are bound by an indissoluble political union.”69 While not all of the atomic scientists harbored doubts—recall the famous debates between Robert Oppenheimer and Edward Teller—the majority became advocates of international control of nuclear weapons, a policy that in retrospect was politically unrealistic. In comparing the assessments and policy recommendations of the physical scientists in the Golden Age, with those of social scientists like Jacob Viner, Bernard Brodie, and William T. R Fox, it is hard to avoid the conclusion that the latter’s views of the nuclear problem (that the genie of nuclear weapons could not be stuffed back in the bottle), and their recommendations for dealing with that situation (nuclear deterrence), were far more “realistic” than those of the nuclear “one world” physical scientists. What Is to Be Done? There are, of course, some nuts-and-bolts issues that scholars should be mindful of if they want to participate in the broader policy debate. Since policymakers have short attention spans given the number and breadth of issues they have to deal with, scholarly efforts to engage them need to be brief in conveying their ideas.70 This explains why Op/Eds are particularly influential and why so many are optimistic that blogs could play a similar role. Moreover, policymakers find much current scholarly work—from across the methodological spectrum—inaccessible. The common sentiment animating their views is that scholars should cut the jargon. Policymakers don’t want scholars to write in Greek or French, but rather just plain English.71 There are also some much bigger issues undergirding the relevance question.72 To begin with, political science needs to rethink how it balances scholarly rigor with practical application. There is a middle ground between policy analysis and journalism, on one side, and scholastic irrelevance on the other.73 The best approach to balancing scholarly rigor with continuing policy relevance is methodological pluralism, which includes a commitment to using not any particular method (or all of them) but rather just the approach most appropriate for the question at hand. But methodological pluralism, by itself, is not sufficient. The latest trend in political science requiring the simultaneous use of multiple methods could, ironically, prove to be even more limiting of policy relevance. Indeed, given the need to employ all of these methods simultaneously, it is potentially even more constraining in terms of the problems it can address because it has to be limited to those which can be quantified, modeled, and studied in depth at the same time.74 Therefore, reinforcing methodological pluralism must also be a commitment to problem-, rather than method-, driven research agendas. It is only the combination of these two principles that will ensure that policy-relevant security studies can not only survive, but thrive, in political science.75 Scholars also need to think carefully about the role of theory in policyrelevant security studies scholarship. While there is no doubt that theory is important to policymakers, scholars need to be aware that as with many other things, too much of it can be a bad thing. In particular, the effort to cram the rich complexity of the social world into universal models can do intellectual violence to the phenomenon under study as well as produce suboptimal policy. Paul Nitze, then the director of the Secretary of State’s Policy Planning Staff, readily conceded policymakers’ need for theory but also noted that “there is the opposing consideration .. . that [theoretical] oversimplification presents great dangers.”76 Albert Wohlstetter advocated a balanced approach to theory, noting that the key to his success throughout his career “was the practical experience I had in working with engineers. I worked with them from two sides, so to speak, as someone who had been concerned with very abstract theory more basic than that familiar to design engineers, but on the other hand, I was also concerned with production, and therefore generally trying to get them to do things more practical than they wanted to do.”77 Theory is a powerful tool of statecraft, but when scholars embrace universal models they also risk irrelevance or worse. Likewise, the transmission belts conveying scholarly findings to the policy world must be repaired. Kennan envisioned the State Department’s Policy Planning Staff in the late 1940s serving this function, and in some respects it continues to do so to this day.78 However, there are limits to how effectively a part of the bureaucracy can serve as an honest research broker. A plethora of think tanks in Washington are also supposed to translate knowledge into action, though the trend in recent years has been toward the establishment of overtly political and advocacy organizations, rather than nonpartisan, translational research centers.79 Reinventing the role of think tanks as bridges between the Ivory Tower and the beltway is long overdue. While nonacademic transmission belts can mediate between the Ivory Tower and the Beltway, they are no substitute for the scholars who produce knowledge to themselves serve as their own translators of it into policy. To be sure, scholars should not stop writing scholarly books and monographs utilizing the most sophisticated techniques of their discipline, if appropriate. In addition to doing these things, scholars should address pressing real world problems, not just chase after disciplinary fads. No one is in a better position to highlight the policy implications of a given piece of research than the individual who conducted it. Academic social scientists, if they want to be heard by senior policymakers, and heard correctly, need to be their own policy “transmission belts.”80 The role of the Democratic Peace Theory in the recent Iraq war demonstrates the problems with scholars not specifying the concrete policy implications of their research.81 Drawing on DPT, some officials in the George W. Bush administration justified the invasion of Iraq as part of a larger strategy to bring peace to the region by spreading democracy.82 Democratic Peace proponent Bruce Russett objected to this conclusion after the fact though his voice had been largely mute in the run up to the war.83 Had he and other democracy scholars participated more actively in the prewar debate, this rationale may have been less credible. Academics also need to develop a more nuanced appreciation of the various influences on policy. Many, even in democratic political systems, tend to have an unrealistically “technocratic” attitude toward policymaking. 84 They often underestimate the role of politics in government decision making. Scholars must therefore understand that the policymaking process is inherently political and that without such an appreciation of the political considerations associated with any policy choice, even a good one may not be implemented.85

#### 3. No impact to warming AND CO2 is key to plant growth – solves food insecurity

**Carter et al. 14**, Dr. Craig D. Idso is founder and chairman of the Center for the Study of Carbon Dioxide and Global Change. Since 1998, he has been the editor and chief contributor to the online magazine CO2 Science. He is the author of several books, including The Many Benefits of Atmospheric CO2 Enrichment (2011) and CO2 , Global Warming and Coral Reefs (2009). He earned a Ph.D. in geography from Arizona State University (ASU), where he lectured in meteorology and was a faculty researcher in the Office of Climatology. Dr. Sherwood B. Idso is president of the Center for the Study of Carbon Dioxide and Global Change. Previously he was a Research Physicist with the U.S. Department of Agriculture’s Agricultural Research Service at the U.S. Water Conservation Laboratory in Phoenix, Arizona. He is the author or co-author of over 500 scientific publications including the books Carbon Dioxide: Friend or Foe? (1982) and Carbon Dioxide and Global Change: Earth in Transition (1989). He served as an Adjunct Professor in the Departments of Geology, Geography, and Botany and Microbiology at Arizona State University. He earned a Ph.D. in soil science from the University of Minnesota. Dr. Robert M. Carter is a stratigrapher and marine geologist with degrees from the University of Otago (New Zealand) and University of Cambridge (England). He is the author of Climate: The Counter Consensus (2010) and Taxing Air: Facts and Fallacies About Climate Change (2013). Carter's professional service includes terms as head of the Geology Department, James Cook University, chairman of the Earth Sciences Panel of the Australian Research Council, chairman of the national Marine Science and Technologies Committee, and director of the Australian Office of the Ocean Drilling Program. He is currently an Emeritus Fellow of the Institute of Public Affairs (Melbourne). Dr. S. Fred Singer is one of the most distinguished atmospheric physicists in the U.S. He established and served as the first director of the U.S. Weather Satellite Service, now part of the National Oceanic and Atmospheric Administration (NOAA), and earned a U.S. Department of Commerce Gold Medal Award for his technical leadership. He is coauthor, with Dennis T. Avery, of Unstoppable Global Warming Every 1,500 Years (2007, second ed. 2008) and many other books. Dr. Singer served as professor of environmental sciences at the University of Virginia, Charlottesville, VA (1971-94), and is founder and chairman of the nonprofit Science and Environmental Policy Project. He earned a Ph.D. in physics from Princeton University. Barnes, David J. Australian Institute of Marine Science (retired) Australia Botkin, Daniel B. University of Miami University of California Santa Barbara USA Cloyd, Raymond A. Kansas State University USA Crockford, Susan University of Victoria, B.C. Canada Cui, Weihong Chinese Academy of Sciences China DeGroot, Kees Shell International (retired) The Netherlands Dillon, Robert G. Physician USA Dunn, John Dale Physician USA Ellestad, Ole Henrik Research Council of Norway (retired) Norway Goldberg, Fred Swedish Polar Institute Sweden Goldman, Barry Australian Museum Lizard Island Research Station (retired) Australia Hoese, H. Dickson Consulting Marine Biologist USA Jødal, Morten Independent Scientist Norway Khandekar, Madhav Environment Canada (retired) Canada Kutilek, Miroslav Czech Technical University (emeritus) Czech Republic Leavitt, Steven W. University of Arizona Laboratory of Tree-Ring Research USA Maccabee, Howard Doctors for Disaster Preparedness USA Marohasy, Jennifer Central Queensland University Australia Ollier, Cliff University of Western Australia Australia Petch, Jim University of Manchester Trican Manchester Metropolitan University (retired) United Kingdom Reginato, Robert J. Agricultural Research Service U.S. Department of Agriculture USA Reiter, Paul Laboratoire Insectes et Maladies Infectieuses Institut Pasteur France Segalstad, Tom Resource and Environmental Geology University of Oslo Norway Sharp, Gary Independent Consultant Center for Climate/ Ocean Resources Study USA Starck, Walter Independent Marine Biologist Australia Stockwell, David Central Queensland University Australia Taylor, Mitchell Lakehead University Canada Weber, Gerd Independent Meteorologist Germany Wilson, Bastow University of Otago New Zealand Wust, Raphael James Cook University Australia, (“Climate Change Reconsidered II: Biological Impacts”, http://www.nipccreport.org/reports/ccr2b/pdf/Summary-for-Policymakers.pdf, 3/31/2014) Kerwin

Results obtained under 3,586 separate sets of experimental conditions conducted on 549 plant species reveal nearly all plants experience increases in dry weight or biomass in response to atmospheric CO2 enrichment. Additional results obtained under 2,094 separate experimental conditions conducted on 472 plant species reveal nearly all plants experience increases in their rates of photosynthesis in response to atmospheric CO2 enrichment. ,Long-term CO2 enrichment studies confirm the findings of shorter-term experiments, demonstrating that the growth-enhancing, water-conserving, and stress-alleviating effects of elevated atmospheric CO2 likely persist throughout plant lifetimes. • Forest productivity and growth rates throughout the world have increased gradually since the Industrial Revolution in concert with, and in response to, the historical increase in the air’s CO2 concentration. Therefore, as the atmosphere’s CO2 concentration continues to rise, forests will likely respond by exhibiting significant increases in biomass production and they likely will grow more robustly and significantly expand their ranges. • Modest increases in air temperature tend to increase carbon storage in forests and their soils. Thus, old-growth forests can be significant carbon sinks and their capacity to sequester carbon in the future will be enhanced as the air’s CO2 content continues to rise. • As the atmosphere’s CO2 concentration increases, the productivity of grassland species will increase even under unfavorable growing conditions characterized by less-than-adequate soil moisture, inadequate soil nutrition, elevated air temperature, and physical stress imposed by herbivory. • The thawing of permafrost caused by increases in air temperature will likely not transform peatlands from carbon sinks to carbon sources. Instead, rapid terrestrialization likely will act to intensify carbon-sink conditions. ,Rising atmospheric CO2 concentrations likely will enhance the productivity and carbon sequestering ability of Earth’s wetlands. In addition, elevated CO2 may help some coastal wetlands counterbalance the negative impacts of rising seas. • Rising atmospheric CO2 concentrations likely will allow greater numbers of beneficial bacteria (that help sequester carbon and nitrogen) to exist within soils and anaerobic water environments, thereby benefitting both terrestrial and aquatic ecosystems. • The aerial fertilization effect of atmospheric CO2 enrichment likely will result in greater soil carbon stores due to increased carbon input to soils, even in nutrient-poor soils and in spite of predicted increases in temperature. The carbon-sequestering capability of Earth’s vegetation likely will act as a significant brake on the rate-of-rise of the air’s CO2 content and thereby help to mute the magnitude of any CO2-induced global warming. • The historical increase in the air’s CO2 content has significantly reduced the erosion of valuable topsoil over the past several decades; the continuing increase in atmospheric CO2 can maintain this trend and perhaps even accelerate it for the foreseeable future.

#### Agricultural crises are creating global food shortages – that kills a billion people – increased CO2 is key to solve

Idso’s, 11 [Sherwood PhD and former research physicist for the Department of Agriculture, Keith PhD Botany, Craig PhD Geography, 6/6/2011, “Meeting the Food Needs of a Growing World Population”, http://www.co2science.org/articles/V14/N27/EDIT.php] DHirsch

Parry and Hawkesford (2010) introduce their study of the global problem by noting that "food production needs to increase 50% by 2030 and double by 2050 to meet projected demands," and they note that at the same time the demand for food is increasing, production is progressively being limited by "non-food uses of crops and cropland," such as the production of biofuels, stating that in their homeland of the UK, "by 2015 more than a quarter of wheat grain may be destined for bioenergy production," which surely must strike one as both sad and strange, when they also note that "currently, at least one billion people are chronically malnourished and the situation is deteriorating," with more people "hungrier now than at the start of the millennium." So what to do about it: that is the question the two researchers broach in their review of the sad situation. They begin by describing the all-important process of photosynthesis, by which the earth's plants "convert light energy into chemical energy, which is used in the assimilation of atmospheric CO2 and the formation of sugars that fuel growth and yield," which phenomena make this natural and life-sustaining process, in their words, "a major target for improving crop productivity both via conventional breeding and biotechnology." Next to a plant's need for carbon dioxide comes its need for water, the availability of which, in the words of Parry and Hawkesford, "is the major constraint on world crop productivity." And they state that "since more than 80% of the [world's] available water is used for agricultural production, there is little opportunity to use additional water for crop production, especially because as populations increase, the demand to use water for other activities also increases." Hence, they rightly conclude that "a real and immediate challenge for agriculture is to increase crop production with less available water." Enlarging upon this challenge, they give an example of a *success story*: the Australian wheat variety 'Drysdale', which gained its fame "because it uses water more efficiently." This valued characteristic is achieved "by slightly restricting stomatal aperture and thereby the loss of water from the leaves." They note, however, that this ability "reduces photosynthetic performance slightly under ideal conditions," but they say it enables plants to "have access to water later in the growing season thereby increasing total photosynthesis over the life of the crop." Of course, Drysdale is but one variety of one crop; and the ideal goal would be to get nearly all varieties of all crops to use water more efficiently. And that goal can actually be reached by doing nothing, by merely halting the efforts of radical environmentalists to deny earth's carbon-based life forms -- that's all of us and the rest of the earth's plants and animals -- the extra carbon we and they need to live our lives to the fullest. This is because allowing the air's CO2content to rise in response to the burning of fossil fuels naturally causes the vast majority of earth's plants to progressively reduce the apertures of their stomata and thereby lower the rate at which water escapes through them to the air. And the result is even better than that produced by the breeding of Drysdale, because the extra CO2 in the airmore than overcomes the photosynthetic reduction that results from the partial closure of plant stomatal apertures, allowing even more yield to be produced per unit of water transpired in the process. Yet man can make the situation better still, by breeding and selecting crop varieties that perform better under higher atmospheric CO2 concentrations than the varieties we currently rely upon, or he can employ various technological means of altering them to do so. Truly, we can succeed, even where "the United Nations Millennium Development Goal of substantially reducing the world's hungry by 2015 will not be met," as Parry and Hawkesford accurately inform us. And this truly seems to us the moral thing to do, when "at least one billion people are chronically malnourished and the situation is deteriorating," with more people "hungrier now than at the start of the millennium."

#### Creates a negative feedback which solves warming

**Idso’s, 11** [Sherwood PhD and former research physicist for the Department of Agriculture, Keith PhD Botany, Craig PhD Geography, 8/10/2011. “Forests Find More Nitrogen in the Soils of a Warming World”, http://www.co2science.org/articles/V14/N32/B2.php] DHirsch

Background The authors write that "soil warming experiments conducted in a variety of ecosystems, including forests, have shown short-term losses of soil carbon as CO2," as well as "acceleration of nitrogen cycling rates, leading to an increase in the availability of nitrogen to the vegetation (Peterjohn *et al*., 1994; Rustad and Fernandez, 1998; Luo et al., 2001; Shaw and Harte, 2001; Melillo et al., 2002; Eliasson et al., 2005)," and they state that "the principles of ecosystem stoichiometry (Melillo and Gosz, 1983; Rastetter et al., 1992; Sterner and Elser, 2002) suggest that, in forest ecosystems, the redistribution of a relatively small amount of this newly available nitrogen from the soil to the trees could result in a substantial increase in carbon storage in woody tissues." What was done In a long-term (seven-year) effort designed to further explore these closely related phenomena, Melillo et al. (2011) measured changes in net carbon storage in both trees and soil in a mixed hardwood forest ecosystem in central Massachusetts (USA) in response to a 5°C increase in soil temperature imposed on a 30 x 30-m tract of land that was heated by a matrix of heating cables buried at a depth of 10 cm and spaced 20 cm apart, comparing the results from that tract of land with those they obtained on a non-heated 30 x 30-m tract of similar land. What was learned The fifteen researchers report that the soil warming of their study resulted in carbon losses from the soil; but they say that it simultaneously stimulated carbon gains in the woody tissues of the trees. Altogether, over the seven years of the experiment, they indicate that "the cumulative warming-induced net flux of carbon has been from the forest to the atmosphere," but they note that "the magnitude of the flux has diminished over time as a result of the increase in tree growth rate in the heated area." And they state that in the seventh year of the study, "warming-induced soil carbon losses were almost totally compensated for by plant carbon gains in response to warming," which phenomenon they attributed to "warming-induced increases in nitrogen availability." What it means Melillo et al. conclude that "although warming has resulted in a net positive feedback to the climate system, the magnitude of the feedback has been substantially dampened by the increase in storage of carbon in vegetation." And if their study were to continue, and if the trend established over its first seven years were to continue, one could expect to see the sign of the feedback change from positive to negative, perhaps as soon as the next year or two, and to grow more negative from that point in time, with the long-term climate feedback ultimately proving to be negative, demonstrating the extreme importance of long-term studies of this nature.

#### Decolonization as a metaphor lets colonialism off the hook

Tuck and Yang 12 (Eve, State University of New York at New Paltz, K. Wayne, University of California, San Diego, Decolonization is not a metaphor, Decolonization: Indigeneity, Education & Society Vol. 1, No. 1, 2012, pp. 1-40, http://decolonization.org/index.php/des/article/view/18630/15554)

Our goal in this article is to remind readers what is unsettling about decolonization. Decolonization brings about the repatriation of Indigenous land and life; it is not a metaphor for other things we want to do to improve our societies and schools. The easy adoption of decolonizing discourse by educational advocacy and scholarship, evidenced by the increasing number of calls to “decolonize our schools,” or use “decolonizing methods,” or, “decolonize student thinking”, turns decolonization into a metaphor. As important as their goals may be, social justice, critical methodologies, or approaches that decenter settler perspectives have objectives that may be incommensurable with decolonization. Because settler colonialism is built upon an entangled triad structure of settler-native-slave, the decolonial desires of white, nonwhite, immigrant, postcolonial, and oppressed people, can similarly be entangled in resettlement, reoccupation, and reinhabitation that actually further settler colonialism. The metaphorization of decolonization makes possible a set of evasions, or “settler moves to innocence”, that problematically attempt to reconcile settler guilt and complicity, and rescue settler futurity. In this article, we analyze multiple settler moves towards innocence in order to forward “an ethic of incommensurability” that recognizes what is distinct and what is sovereign for project(s) of decolonization in relation to human and civil rights based social justice projects. We also point to unsettling themes within transnational/Third World decolonizations, abolition, and critical spaceplace pedagogies, which challenge the coalescence of social justice endeavors, making room for more meaningful potential alliances.

### Framing

#### 1. ROTB is to vote for whoever did the better debating. Otherwise it is arbitrary and self serving. The da proves directly why appropriating is just.

#### 2. Extinction first

Sánchez ’17 (David; 2/8/17; BA in Public Policy, BA in Economics and Philosophy, expert at the Kenan Institute for Ethics, citing Nick Bostrom, PhD in Philosophy; Duke’s The Chronicle; “Existential risks”; <http://www.dukechronicle.com/article/2017/02/existential-risks-questions-and-considerations>; DOA: 4/21/17)

How often do you think about the end of the world? Some people think about it quite a bit. Within Effective Altruism circles, many people share a concern for the future of humanity. Effective Altruists attempt to combine good intentions with science and reasoning to find the best ways to do good, whether for humans or non-human animals. Mitigation of so-called “existential risks” is a huge priority for some of their more risk-seeking members. An existential risk, put simply, is some class of possible event that presents a risk of extinction to humanity. Nick Bostrom, Oxford philosopher and existential risk extraordinaire, defines it this way: “One where an adverse outcome would either annihilate Earth-originating intelligent life or permanently and drastically curtail its potential.” Some main classes of existential risk include catastrophic climate change, malicious artificial superintelligence, the emergence of malicious nanotechnology, nuclear war and malicious bio-tech, among others. When considering the threats posed by so-called “x-risks,” there are at least three factors to keep in mind. First, bear in mind that if humanity continues for the foreseeable future, then the number of potential people in the future will be significantly higher than the number who exist today or have existed in the past. Additionally, the expected disutility of extinction-level events is massive, meaning that even a small mitigation of those probabilities results in a huge positive. Per one interpretation of the evidence, “even if we use the most conservative of these estimates… we find that the expected loss of an existential catastrophe is greater than the value of 1016 human lives. This implies that the expected value of reducing existential risk by a mere one millionth of one percentage point is at least a hundred times the value of a million human lives.” If this holds even remotely true, then surely we should keep listening. Second, consider that some experts believe the probability of extinction-level events is somewhat high. In a report released by Oxford’s Future of Humanity Institute, a survey of experts found the likelihood of extinction by the year 2100 to be a whopping 19 percent. While this number should be taken with a grain of salt, it is unsettling that people in the know are so pessimistic about our odds. Third, bear in mind that there are very, very few people dedicated to mitigating these existential risks. Some limited efforts exist, but they are low-staffed and underfunded. As Nick Bostrom has noted, even “a million dollars could currently make a vast difference to the amount of research done on existential risks; the same amount spent on furthering world peace would be like a drop in the ocean.” If you’re looking for a cause with a funding gap, this might be just the ticket. Looking throughout history, we can find plenty of examples of near-nuclear war; the Future of Life Institute compiled a nice list of the most notable. What this might show us is that our planet has almost faced near-extinction level events in the past. One reason we are all still here is because people worked to craft systems that would avoid careless mistakes or oversights. In other words, we built systems that attempted to mitigate these risks. If these systems had not been in place, and lazy fail-safes failed to prevent disaster, then what would have happened? Perhaps not outright extinction, but disaster indeed. During the Cold War, the notion of “mutually assured destruction” was not some abstract; it was a working possibility, one that humanity had to take seriously. So today, in a world with ever-advancing technology and geopolitical uncertainty, we lack a compelling reason not to take these sorts of risks seriously. The need to mitigate existential risk stands or falls with free will—if it does not exist, then there is little or no case to be made. But if it does—even to an extent—then we have every reason to at least listen to the experts. So, perhaps my thesis is that insofar as a person believes humans have free will (i.e. a degree of autonomy over their destinies), he or she likely will have reason to support causes that mitigate the risks imposed by disaster scenarios. This is not meant to take a stand on cause prioritization. It might be more worthwhile still to donate to groups that fight global health problems or empower people economically. However, excluding opportunity cost, donating time or money to mitigating these threats is likely net positive, depending on the efficacy of the organization or project. Given that we have not observed an existential threat play out in the past, we might be biased towards believing that one might never emerge. Accordingly, this is an area where rational thinking is absolutely essential. In my view, whether or not to support or donate to these causes is an open question. But if the whole of humanity is at stake, it is at least a conversation worth having.

#### 3. default to conseqeuentalist utilitarianism

Kymlicka 88 (Will Kymlicka, Professor of philosophy at Queen's University, Summer 1988, “Rawls on Teleology and Deontology” Philosophy & Public Affairs Vol 17 No 3 <http://www.jstor.org/stable/2265243?origin=JSTOR-pdf> ACC 8/5/11; singer)

On one interpretation utilitarianism is a procedure for aggregating in- dividual interests and desires, a procedure for making social choices, spec- ifying which trade-offs are acceptable. It **is a moral theory because it pur- ports to treat people as equals, with equal concern and respect. It does so by counting everyone for one,** and no one for more than one. This justifi- cation of utilitarianism does not falsely generalize from what is rational in the one-person case, and hence does not fail to respect the distinctness of persons in that sense.6 Individuals are of course distinct, with distinct and potentially conflicting preferences. The problem, on this interpretation of utilitarianism, is how to treat distinct people fairly. The standard solution is to give each person's interests equal weight. **Each person's life matters equally, from the moral point of view, and hence each person's interests deserve equal consideration. To give some people's interests more weight is to treat others as less than equals**. Now, this idea of treating people with equal consideration is very imprecise, and it needs to be spelled out if it is to be a real guide for our actions. One obvious, and perhaps initially ap- pealing, way of doing so is to give equal weight to each preference of each person, regardless of the content of the preference or the material situa- tion of the person. That is, we count everyone for one, no one for more than one. **If we decide how to act on this basis, then utility is maximized. But max- imization of utility is not the direct goal. Maximization occurs, but as a by- product of a decision procedure that is intended to aggregate people's pref- erences fairly**. Not all utilitarians desire maximization because they treat rational social choice on the model of rational individual choice. On the contrary, it is the concern with equal consideration that clearly underlies Bentham's argument7 and is explicitly affirmed by recent utilitarians such as John Harsanyi and James Griffin.8 And while this is not his preferred method, R. M. Hare too claims that one could defend utilitarianism by ref- erence to a foundational premise of equal consideration. Hare, in fact, finds it difficult to imagine how equal consideration for people could mean anything else.9

4. Extinction outweighs – death is the only ontological state – if you think ontology outweighs, auto-vote aff. There’s only a risk Native aren’t totally devoid of value, but extinction denies it to everyone which outweighs on scope.

1. It’s the only irreversible impact and none of their offense is coherent without consciousness.
2. Killing everyone for ethics is a sacrificial logic that’s justified gulags and genocide.
3. Nuke war is terrible and causes extinction That’s **Edwards 7. Diseases are also terrible and cause extinction, that’s Darling 12**
4. All systems of ethics ultimately collapse to “unavoidable suffering is bad”, nuke war and pandemics prevent that on the largest possible scale.
5. All your cards analogize your impact to death – that proves it outweighs. Your job as the judge is to scour the flow for a way to minimize existential risk.