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### 1AC---FRAND ADV

#### Advantage 1 is FRAND:

#### Standards-Setting Organizations (SSO’s) are industry members who jointly establish standards for information tech defined by the adoption of standard-essential patents (SEP’s), which are licensed to companies who wish to implement the tech in their product, called implementers, on Fair, Reasonable, and Non-Discriminatory (FRAND) terms. Current standards promote price gouging, FRAND enforcement is critical.

Melamed & Shapiro 18, \*A. Douglas Melamed is Professor of the Practice of Law at Stanford Law School; \*Carl Shapiro is the Transamerica Professor of Business Strategy at the Haas School of Business at the University of California at Berkeley; (May 2018, “How Antitrust Law Can Make FRAND Commitments More Effective”, https://www-cdn.law.stanford.edu/wp-content/uploads/2018/05/How-Antitrust-Law-Can-Make-FRAND-Commitments-More-Effective.pdf)

I. Standard Setting and the Competitive Process

The fundamental economics in the information technology sector, driven by network effects, implies that there is enormous value associated with establishing compatibility standards. Popular standards include the mobile broadband standards used in cell phones, which are established by the 3rd Generation Partnership Project (3GPP), and the Wi-Fi technology for wireless local area networks, which is enabled by the 802.11 standard established by the Institute of Electrical and Electronics Engineers (IEEE).4

There are many SSOs, and their rules and procedures differ considerably. In addition to IEEE, leading SSOs include the International Organization for Standardization (ISO), the International Telecommunication Union (ITU), the European Telecommunications Standards Institute (ETSI), the Internet Engineering Task Force (IETF), and the World Wide Web Consortium (W3C).5 SSOs generally establish standards by holding a series of committee meetings among industry participants. These meetings culminate in a vote on a technical specification that describes what features or attributes a product must have in order to comply with the standard. Most SSOs are open to all industry participants and seek to operate on a consensus basis, applying certain voting rules. SSOs do not normally engage in patent licensing, nor do they specify how patent royalties will be divided up among patent holders. They leave that to their members, which in some cases form patent pools to address these issues.6

SSOs adopt specific policies relating to intellectual property rights (IPRs).7 These IPR policies are generally intended to enable the SEP holders to obtain reasonable royalties for licensing their patents, while prohibiting them from charging excessive royalties after other industry participants have committed to the standard. At that point, firms committed to implementing the standard— which we call “implementers”—would find it very costly to avoid using the patented technology. For this purpose, most SSOs require SEP owners to license their SEPs on FRAND terms.8

FRAND policies are especially necessary because negotiations between SEP holders and implementers generally take place only after the implementers have used and infringed the technologies claimed by the SEPs. Standards involving information and communications technology can involve hundreds or even thousands of SEPs, many with uncertain boundaries for infringement. In addition, a time lag exists between patent application and patent issuance. For these and other reasons, it is impractical for implementers to enter into negotiations for patent licenses with all SEP owners prior to the establishment of a standard and to their implementation of it.9

The fact that patent negotiations generally do not take place until after implementers have used and infringed the technologies has several critical implications. First, at the time of negotiation, implementers are locked into the standard and the technologies claimed by the SEPs—that is, the cost to switch to an alternative technology or standard at that point—ex post—is much greater than it was ex ante, before the patented technology was first included in the standard. Ex post, the patent holder is no longer competing to have its technology included in the standard, nor is it competing to have implementers of the standard use its technology. Instead, because the patent holder owns an asset that is essential to the standard, implementers have no choice but to use the patented technology.

If the standard is commercially successful, implementers are willing to pay a much larger royalty for use of the patented technology than they would have paid ex ante, when the SEP holder faced competition from other technologies. In these circumstances, the SEP holder can be said to have obtained monopoly power in the market in which the patented technology is licensed for use in implementing the standard.10

Second, because of lock-in and the implementer’s ongoing infringement, the potential for litigation looms large in licensing negotiations. In effect, the parties are negotiating about how to settle an infringement suit, and that negotiation is heavily influenced by their predictions as to what the court will do if they cannot agree. This situation is not unique to SEPs; it arises frequently when firms are faced with patent infringement claims for products they have independently developed or technologies they have inadvertently infringed. Patent law addresses such instances by specifying that patent holders are entitled to “reasonable royalties,” defined as the royalties that the parties would have negotiated prior to the infringement and thus prior to lock-in.11 Those hypothetical ex ante royalties reflect the market value of the patent license. Notwithstanding the law’s embrace of this principle, however, as a practical matter, patent holders are generally able to recover more than the ex ante value of the patent when litigation occurs after the implementers are locked in. Further, negotiations in the shadow of litigation after lock-in tend to result in royalties in excess of the ex ante or market value of the patented technology.12

Third, the shadow of litigation is particularly problematic in the communications and technology sector, in which products typically include hundreds or thousands of patented technologies. A court-ordered injunction involving such products would deprive the implementer of not only the value of the technology covered by the patent-in-suit, but also the value of the entire product.13 Implementers that are forced to bear the risk of an injunction are thus induced to agree to royalties greater than those that would be appropriate if only the value of the patented technology were at stake. Those royalties systematically provide SEP holders with excessive compensation in comparison with the benchmark of ex ante royalties.

These implications of lock-in and ex post dealings are well-understood: they represent an example of the general concept of lock-in and opportunism developed by Oliver Williamson.14 The Federal Circuit has also recognized the market distortions caused by the inclusion of patented technologies in public standards and the resulting danger of patent holdup involving SEPs.15

For these and other reasons, the SEP holder has ex post monopoly power that, if left unchecked, would enable it to obtain royalties far in excess of the royalties that it could earn in a competitive market.16 To address this common problem and limit ex post opportunism by SEP holders, SSOs typically require participants that own SEPs to make certain FRAND commitments. In particular, by requiring a commitment to license on “fair and reasonable” terms, the FRAND requirement aims to prevent, or at least reduce, the extent of monopoly pricing by SEP holders. And by requiring a commitment to license on “nondiscriminatory” terms, the FRAND requirement can prevent SEP holders from extracting monopoly premiums by selective licensing or, more important, migrating their monopoly power from the FRAND-regulated market to unregulated standard-implementing product markets by licensing to only one or a few implementers or licensing to selected implementers on discriminatorily favorable terms.

#### Patent holdup is accentuated by the Ninth Circuit’s recent decision in *FTC v. Qualcomm* that permits ICT firms to engage in innovation-stifling conduct with antitrust impunity.

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Standards can enhance competition and consumer choice, but they also massively inflate the value of patents deemed essential to the standard, and give their owners the power to sue companies that implement the standard for money damages or injunctions to block them from using their SEPs. When standards cover critical features like wireless connectivity, SEP owners wield a huge amount of “hold-up” power because their patents allow them to effectively block access to the standard altogether. That lets them charge unduly large tolls to anyone who wants to implement the standard.

To minimize that risk, standard-setting organizations typically require companies that want their patented technology incorporated into a standard to promise in advance to license their SEPs to others on fair, reasonable, and non-discriminatory (FRAND) terms. But that promise strikes at a key tension between antitrust and patent law: patent owners have no obligation to let anyone use technology their patent covers, but to get those technologies incorporated into standards, patent owners usually have to promise that they will give permission to anyone who wants to implement the standard as long as they pay a reasonable license fee.

Qualcomm is one of the most important and dominant companies in the history of wireless communication standards. It is a multinational conglomerate that has owned patents on every major wireless communication standard since its first CDMA patent in 1985, and it participates in the standard-setting organizations that define those standards. Qualcomm is somewhat unique in that it not only licenses SEPs, but also supplies the modem chips used by a wide range of devices. These include chips that implement wireless communication standards, which lie at the heart of every mobile computing device.

Although Qualcomm promised to license its SEPs (including patents essential to CDMA, 3G, 4G, and 5G) on FRAND terms, its conduct has to many looked unfair, unreasonable, and highly discriminatory. In particular, Qualcomm has drawn scrutiny for bundling tens of thousands of patents together—including many that are not standard-essential—and offering portfolio-only licenses no matter what licensees actually want or need; refusing to sell modem chips to anyone without a SEP license and threatening to withhold chips from companies trying to negotiate different license terms; refusing to license anyone other than original-equipment manufacturers (OEMs); and insisting on royalties calculated as a percentage of the sale price of a handset sold to end users for hundreds of dollars, despite the minimal contribution of any particular patent to the retail value.

In 2017, the U.S. Federal Trade Commission [sued](https://www.ftc.gov/news-events/press-releases/2017/01/ftc-charges-qualcomm-monopolizing-key-semiconductor-device-used) Qualcomm for violating both sections of the Sherman Antitrust Act by engaging in a number of anticompetitive SEP licensing practices. In May 2019, the U.S. District Court for the Northern District of California agreed with the FTC, identifying numerous instances of Qualcomm’s unlawful, anticompetitive conduct in a comprehensive [233-page opinion](https://www.eff.org/document/ftc-v-qualcomm-district-court-opinion). We were pleased to see the FTC take action and the district court credit the overwhelming evidence that Qualcomm’s conduct is corrosive to market-based competition and threatens to cement Qualcomm’s dominance for years to come.

But this month, a panel of judges from the Court of Appeals for the Ninth Circuit unanimously [overturned](https://www.eff.org/document/ninth-circuit-opinion-ftc-v-qualcomm) the district court’s decision, reasoning that Qualcomm’s conduct was “hypercompetitive” but not “anticompetitive,” and therefore not a violation of antitrust law. To reach that result, the Ninth Circuit made the patent grant more powerful and antitrust law weaker than ever.

According to the Ninth Circuit, patent owners don’t have a duty to let anyone use what their patent covers, and therefore Qualcomm had no duty to license its SEPs to anyone. But that framing requires ignoring the promises Qualcomm made to license its SEPs on reasonable and non-discriminatory terms—promises that courts in this country and around the world have consistently enforced. It also means ignoring antitrust principles like the essential facilities doctrine, which limits the ability of a monopolist with hold-up power over an essential facility (like a port) to shut out rivals. Instead, the Ninth Circuit held rather simplistically that a duty to deal could arise only if the monopolist had provided access, and then reversed its policy.

But even when Qualcomm restricted its licensing policies in critical ways, the Ninth Circuit found reasons to approve those restrictions. For example, Qualcomm stopped licensing its patents to chip manufacturers and started licensing them only to OEMs. This had a major benefit: it let Qualcomm charge a much higher royalty rate based on the high retail price of the end user devices, like smartphones and tablets, that OEMs make and sell. If Qualcomm had continued to license to chip suppliers, its patents would be “exhausted” once the chips were sold to OEMs, extinguishing Qualcomm’s right to assert its patents and control how the chips were used.

Patent exhaustion is a century-old doctrine that protects the rights of consumers to use things they buy without getting the patent owner’s permission again and again. Patent exhaustion is important because it prevents price-gouging, but also because it protects space for innovation by letting people use things they buy freely, including to build innovations of their own. The doctrine thus helps patent law serve its underlying goal—promoting economic growth and innovation. In other words, the doctrine of exhaustion is baked into the patent grant; it is not optional. Nevertheless, the Ninth Circuit wholeheartedly approved of Qualcomm’s efforts to avoid exhaustion—even when that meant cutting off access to previous licensees (chip-makers) in ways that let Qualcomm charge far more in licensing fees than its SEPs could possibly have contributed to the retail value of the final product.

It makes no sense that Qualcomm could contract around a fundamental principle like patent exhaustion, but at the same time did not assume any antitrust duty to deal under these circumstances. Worse, it’s harmful for the economy, innovation, and consumers. Unfortunately, the kind of harm that antitrust law recognizes is limited to harm affecting “competition” or the “competitive process.” Antitrust law, at least as the Ninth Circuit interprets it, doesn’t do nearly enough to address the harm downstream consumers experience when they pay inflated prices for high-tech devices, and miss out on innovation that might have developed from fair, reasonable, and non-discriminatory licensing practices.

We hope the FTC sticks to its guns and asks the Ninth Circuit to go en banc and reconsider this decision. Otherwise, antitrust law will become an even weaker weapon against innovation-stifling conduct in technology markets.

#### Weakened antitrust enforcement emboldens firms to follow Qualcomm’s lead, which collapses FRAND integrity.

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While the FRAND process has been highly productive, it is also fragile. Firms are tempted to make commitments at the beginning when the incentive to join is large, but renege on them later when they can profit by doing so. At least in this particular case, private FRAND enforcement had not worked very well. Qualcomm had been able to violate FRAND commitments in order to exclude rivals and obtain higher royalties than FRAND would permit, largely with impunity. Other firms will very likely follow Qualcomm’s lead. If that happens the FRAND system will fall apart, doing irreparable injury to the modern wireless telecommunications network or, at the very least, diminishing the leadership role of the United States in preserving effective network competition.

While governments can be heavily involved in standard set-ting,9 the implementation of technical standards in information technologies is largely the work of private actors. Government involvement is limited mainly to enforcement of contract, intellectual property, or antitrust law. As private actors, those involved in standard setting or compliance are fully subject to the federal antitrust laws.

This Article addresses one question: when is an SSO participant’s violation of a FRAND commitment an antitrust violation, and if it is, of what kind and what are the implications for remedies? It warns against two extremes. One is thinking that any violation of a FRAND commitment is an antitrust violation as well. In the first instance FRAND obligations are contractual, and most breaches of contract do not violate any antitrust law. The other extreme is thinking that, because a FRAND violation is a breach of contract, it cannot also be an antitrust violation. The question of an antitrust violation does not de-pend on whether the conduct breached a particular agreement but rather on whether it caused competitive harm. This can happen because the conduct restrained trade under section 1 of the Sherman Act, was unreasonably exclusionary under section 2 of the Sherman Act, or amounted to an anticompetitive condition or understanding as defined by section 3 of the Clay-ton Act.10 The end goal is to identify practices that harm com-petition, thereby injuring consumers.

The Ninth Circuit’s Qualcomm decision will make antitrust violations in the context of FRAND licensing much more difficult to prove, even in cases where anticompetitive behavior and consumer harm seem clear.11 Indeed, in this case the court itself acknowledged the harm to consumers but appeared to think that they were not entitled to protection.12 If this decision stands, FRAND obligations will to a larger extent have to be settled through private litigation and the federal antitrust enforcement agencies will have a diminished role. Anticompetitive behavior by one firm that is not effectively disciplined will lead others to do the same thing.

#### Monopoly pricing and selective licensing undermines 5G innovation---FRAND enforcement is key.

Actonline 20, the App Association represents more than 5,000 app companies and information technology firms across the mobile economy; (August 26th, 2020, “Save Our Standards: The Ninth Circuit Court of Appeals Reverses Decision in FTC v. Qualcomm”, <https://actonline.org/2020/08/26/save-our-standards-the-ninth-circuit-court-of-appeals-reverses-decision-in-ftc-v-qualcomm/>)

* Ability edited

Moreover, the FRAND agreement is a critical tool used by standard setting organizations to ensure the process enhances competition and does not run afoul of antitrust laws. Generally, a collaboration between competitors to choose market winners or set prices raises significant questions for competition regulators. Royalty free and FRAND licensing requirements were created by standards bodies to avoid potential antitrust scrutiny by limiting the market power and the potential for abuse by those involved in developing a standard. This is why the American National Standards Institute (ANSI) will not accredit any standards developing organization (SDO) that does not require standard-essential patent holders to provide licensing terms at least as favorable as FRAND.

The most important beneficiary of open interoperability standards and FRAND licensing requirements are the entrepreneurs and small businesses that have long fueled America’s innovation engine. They don’t have giant patent portfolios, market power, or the resources to hire legions of lawyers and spend years battling SEP abusers in civil court. Without some level of certainty about their ability to obtain licenses—let alone what they may cost—entrepreneurs will have trouble justifying the pursuit of any innovation that uses a standard and will certainly struggle to raise money from investors for such innovation. And Qualcomm’s vague and toothless promise simply “not to sue” smaller companies and component makers is no substitute for a license.

The adoption of 5G technology is expected to open unprecedented opportunities for innovation and economic growth as we move toward a world where everything from cars to tractors to buildings will connect to wireless networks. At every stage of the information technology revolution, America has been the undisputed leader because of the unparalleled entrepreneurial innovation ecosystem that we have built. If 5G SEP holders are able to arbitrarily refuse licenses to smaller firms, it would ~~cripple~~ undermine America’s innovation ecosystem at the start of the next big wave of innovation. As economic tensions continue to rise with China, Chinese-based companies could use their 5G SEPs as international economic weapons to thwart U.S. competitors.

The 5G standard is supposed to be a platform for competition, innovation, and entrepreneurship, but if the Ninth Circuit decision is allowed to stand, it will become a chokepoint for snuffing out competitors and demanding monopoly rents. Open standards and FRAND licensing commitments are fundamental to competition in the modern economy, and the idea that they aren’t a subject for antitrust enforcement is patently absurd.

#### The absence of domestic 5G competition cedes leadership in technical standards to China.

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There is little doubt today that American superiority in the next generation of mobile communications, commonly called 5G, is a matter of extraordinary national concern. There is also little doubt that China is a strong competitor, already having outspent the United States by [$24 billion](https://www2.deloitte.com/content/dam/Deloitte/us/Documents/technology-media-telecommunications/us-tmt-5g-deployment-imperative.pdf#page=3) and planning [$411 billion](https://www.scmp.com/tech/china-tech/article/2098948/china-plans-28-trillion-yuan-capital-expenditure-create-worlds) in 5G investment over the next decade. The Chinese government has also laid out multiple national plans for establishing the country as a leader in mobile technology, and the Chinese firm Huawei is poised to be the [top smartphone manufacturer](https://www.cnbc.com/2018/11/16/huawei-aims-to-overtake-samsung-as-no-1-smartphone-player-by-2020.html) by 2020.

And what are United States companies doing about this? Bickering over patents.

For years, the leading American supplier of advanced mobile communications chips has been the San Diego-based Qualcomm. The company has been an innovator of mobile technology, but it has also been a remarkable innovator of convoluted legal strategies. As an ongoing Federal Trade Commission [lawsuit alleges](https://www.ftc.gov/news-events/press-releases/2017/01/ftc-charges-qualcomm-monopolizing-key-semiconductor-device-used), Qualcomm has used its dominant position as a chip supplier and its extensive patent holdings to weave an intricate web of patent licensing across the mobile industry. The effect of that complex licensing scheme, the FTC claims, has been to force competitor chipmakers out of the market and to extract concessions and high patent royalties from smartphone and mobile-device makers.

Qualcomm today faces only one major U.S. competitor—Intel, whose chips Apple recently [started using](https://www.cultofmac.com/484250/intel-reaping-rewards-apples-scrap-qualcomm/) instead of Qualcomm’s. Not surprisingly, Qualcomm has leveraged its patents to force a retaliatory investigation against Apple, the effect of which could be, as an administrative judge [recently determined](http://www.fosspatents.com/2018/10/itc-judge-didnt-buy-testimony-for-which.html), to boot Intel out of the mobile-chip market and leave Qualcomm as a monopoly.

It is hard to imagine that this infighting among Apple, Intel and Qualcomm is getting the United States very far in 5G, and it is harder to imagine that Qualcomm’s desired outcome would do so, either. The best path, instead, is the obvious one: allowing competition and expanding the number of firms working on 5G.

Competition encourages companies to out-innovate each other in order to grab market share. Of particular importance to 5G, competition leads to [better cybersecurity](https://morningconsult.com/opinions/in-the-race-to-5g-monopoly-considered-harmful/) in products, making them less vulnerable to hacking or misuse.

Competition is especially crucial when it comes to the technical standards that define how 5G works. These standards are the work of 3GPP, an international consortium of technology companies in the field. Chinese players such as Huawei and ZTE are major participants in 3GPP. Ensuring that 3GPP’s standards reflect American values requires having as many American companies at the negotiating table as possible—which is harder to achieve when those companies are trying to sue each other out of business.

Certainly patents themselves, as rewards for new inventions, are a driver of innovation in areas such as 5G. The problem, though, is not the existence of a patent system but the ever-expanding power of the patent laws, which encourage companies to pour dollars into complex patent licensing and assertion schemes—as companies like Qualcomm have done—rather than to perform the hard work of building new technologies. When innovation in patent strategy is more profitable than actual innovation, we lose the race to 5G and other technologies.

But don’t take my word for it. [Multiple members of Congress](https://www.patentprogress.org/2019/01/11/congress-weighs-in-on-qualcomm-and-apple-at-the-itc/), from both sides of the aisle, have denounced the use of patents to kick companies like Intel out of 5G development, predicting that such actions would “dampen the quality, innovation, competitive pricing, and in this case the preservation of a strong U.S. presence in the development of 5G and thus the national security of the United States.”

Or look to what China itself is doing. The Chinese government is handing out rewards left and right to encourage technology research and development. Indeed, it grants subsidies and financial benefits (ranging from the [ordinary](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2818503) to the [imperfect](https://funginstitute.berkeley.edu/wp-content/uploads/2013/12/patent_subsidy_Zhen.pdf) to the [bizarre](https://www.scmp.com/news/china/article/1681850/how-get-out-jail-early-china-buy-inventors-idea-and-patent-it)) to encourage its citizens to file for patents. But while China specifically encourages filing for patents, it does little to encourage using them: Patent infringement awards in court are peanuts—often only [five figures](https://scholarship.law.berkeley.edu/btlj/vol33/iss2/2/)—and most Chinese patent owners drop their patents [within five years](https://www.bloomberg.com/news/articles/2018-09-26/china-claims-more-patents-than-any-country-most-are-worthless) of getting them. The message in China is clear: You will be rewarded for innovating, but not for quibbling over patents.

The United States should take the same tack if it wants to match China in 5G. Ever-stronger patent rights encourage counterproductive disputes that are a drag on industry, a drag on research and development, and ultimately a drag on domestic competitiveness on the global stage. If America wants to lead in 5G, then it must clear the path for strong competition among leading American technology companies.

#### Standards leadership allows China to export digital authoritarianism.

Drew et al. 21, \*Dr Alexi Drew, Research Associate, The Policy Institute, King’s College London; (May 7th, 2021, “The Critical Geopolitics of Standards Setting”, https://www.transatlantic-dialogue-on-china.rusi.org/article/the-critical-geopolitics-of-standards-setting)

However, this previously ‘western’ domain is challenged by a Chinese bloc of private industry actors with centrally directed, strategic motivations for their efforts who have managed to leverage the flaws of this system for political and economic advantage.  The market-driven self-regulation model of technical standards has proven itself unsustainable given the geopolitical power achievable through the control of these standards. The marketised approach is easily abusable by a technologically developed nation-state with geopolitical intentions firmly in mind.

Obscurity Through Complexity

Technical standards have the immediate appearance of being both apolitical and ethically neutral. This seems to set them apart from the debate over standards of state behaviour in [cyber space concerning espionage and actions below the threshold of armed conflict](https://www.cfr.org/blog/unexpectedly-all-un-countries-agreed-cybersecurity-report-so-what). Yet, technological standards are unequivocally connected to normative practices of international behaviour and ethics. The extremely complex nature of the standards under consideration in bodies such as the International Organization for Standardization, the International Electrotechnical Commission (IEC), the International Telecommunications Union (ITU), and the Third Generation Partnership Project (3GPP) obscures the very tangible real-world impact that the standards they set have. The 3GPP is responsible for standards setting for mobile telecommunications. It covers everything from 5G through to autonomous vehicles and the Internet of Things. These are the bodies defining how the modern world is constructed.

On the one hand they appear quite benign, responsible for such banalities as the use of Universal Serial Bus (USB) connectors versus proprietary standards. This hardly seems a matter of national security importance. But the same process is responsible for what ultimately shape the basic operating parameters of facial recognition technology in closed circuit television systems, the level of centralised state control at the technical foundations of the internet, and the protections of personally identifiable data. These generate profound implications for international policy and ethics.

Internal Competition vs Strategic Direction

Technical standards setting processes have, historically, been dominated by private sector actors who have had both the capacity to develop a particular technology to the point of holding a significant market share, and the ability to use that market share to advocate for the standardisation of the technology in line with their own production. The market led approach has continued to be the prevailing model by which American companies have globalised the technical standards behind US dominated technological innovation. This privatised form of self-regulation for technology companies is only partially influenced by the approach taken within the EU where [some licensing of standards are controlled by state or EU led institutions.](https://www.ui.se/globalassets/ui.se-eng/publications/ui-publications/2019/ui-brief-no.-2-2019.pdf)

In contrast to this approach the Chinese model has involved a high level of state-oriented direction, oversight, and direct engagement on the creation and signing off technical standards. Efforts to harmonise and centralise technical standards domestically have become increasingly internationalised as the CCP takes this centralised, strategic approach to technical standards setting bodies such as the ITU, 3GPP, and IEC. Technical standards have also become an increasingly central component of the Digital Silk Road with the openly expressed goal of increasing uptake of Chinese technical standards in partner countries.

The implications of this clash between a system of technical standardisation that is driven by the market versus one driven by an authoritarian government subsidised model are a direct challenge to the development of free, open, and ethical technology. Standardisation mechanisms have become political, or rather there has been a gradual realisation of the political power to be gained from the control of technical standards. While the PRC might have come to this awareness first, the US and Europe have since had a rude awakening about the missed opportunity. The privatised model of technical standards setting favoured by European and US markets relies upon the dynamics of financial competition to regulate behaviour. This is in stark contrast to the statist Chinese model.

#### Causes global backsliding.

Kendall-Taylor et. al 20 \*Andrea Kendall-Taylor, senior fellow and director of the Transatlantic Security Program at the Center for a New American Security, co-author of Democracies and Authoritarian Regimes; Erica Frantz is Assistant Professor of Political Science at Michigan State University; Joseph Wright is Professor of Political Science at Pennsylvania State University; (March/April 2020, “The Digital Dictators,” Foreign Affairs, <https://www.foreignaffairs.com/articles/china/2020-02-06/digital-dictators>)

The risk that technology will usher in a wave of authoritarianism is all the more concerning because our own empirical research has indicated that beyond buttressing autocracies, digital tools are associated with an increased risk of democratic backsliding in fragile democracies. New technologies are particularly dangerous for weak democracies because many of these digital tools are dual use: technology can enhance government efficiency and provide the capacity to address challenges such as crime and terrorism, but no matter the intentions with which governments initially acquire such technology, they can also use these tools to muzzle and restrict the activities of their opponents.

#### Democracy solves a litany of existential threats.

Diamond 19, Professor of Political Science and Sociology at Stanford University, Senior Fellow at the Hoover Institution, Senior Fellow at the Freeman Spogli Institute for International Studies, PhD in Sociology from Stanford University, (Dr. Larry, Ill Winds: Saving Democracy from Russian Rage, Chinese Ambition, and American Complacency, p. 199-202)

The most obvious response to the ill winds blowing from the world’s autocracies is to help the winds of freedom blowing in the other direction. The democracies of the West cannot save themselves if they do not stand with democrats around the world. This is truer now than ever, for several reasons. We live in a globalized world, one in which models, trends, and ideas cascade across borders. Any wind of change may gather quickly and blow with gale force. People everywhere form ideas about how to govern—or simply about which forms of government and sources of power may be irresistible—based on what they see happening elsewhere. We are now immersed in a fierce global contest of ideas, information, and norms. In the digital age, that contest is moving at lightning speed, shaping how people think about their political systems and the way the world runs. As doubts about and threats to democracy are mounting in the West, this is not a contest that the democracies can afford to lose. Globalization, with its flows of trade and information, raises the stakes for us in another way. Authoritarian and badly governed regimes increasingly pose a direct threat to popular sovereignty and the rule of law in our own democracies. Covert flows of money and influence are subverting and corrupting our democratic processes and institutions. They will not stop just because Americans and others pretend that we have no stake in the future of freedom in the world. If we want to defend the core principles of self-government, transparency, and accountability in our own democracies, we have no choice but to promote them globally. It is not enough to say that dictatorship is bad and that democracy, however flawed, is still better. Popular enthusiasm for a lesser evil cannot be sustained indefinitely. People need the inspiration of a positive vision. Democracy must demonstrate that it is a just and fair political system that advances humane values and the common good. To make our republics more perfect, established democracies must not only adopt reforms to more fully include and empower their own citizens. They must also support people, groups, and institutions struggling to achieve democratic values elsewhere. The best way to counter Russian rage and Chinese ambition is to show that Moscow and Beijing are on the wrong side of history; that people everywhere yearn to be free; and that they can make freedom work to achieve a more just, sustainable, and prosperous society. In our networked age, both idealism and the harder imperatives of global power and security argue for more democracy, not less. For one thing, if we do not worry about the quality of governance in lower-income countries, we will face more and more troubled and failing states. Famine and genocide are the curse of authoritarian states, not democratic ones. Outright state collapse is the ultimate, bitter fruit of tyranny. When countries like Syria, Libya, and Afghanistan descend into civil war; when poor states in Africa cannot generate jobs and improve their citizens’ lives due to rule by corrupt and callous strongmen; when Central American societies are held hostage by brutal gangs and kleptocratic rulers, people flee—and wash up on the shores of the democracies. Europe and the United States cannot withstand the rising pressures of immigration unless they work to support better, more stable and accountable government in troubled countries. The world has simply grown too small, too flat, and too fast to wall off rotten states and pretend they are on some other planet. Hard security interests are at stake. As even the Trump administration’s 2017 National Security Strategy makes clear, the main threats to U.S. national security all stem from authoritarianism, whether in the form of tyrannies from Russia and China to Iran and North Korea or in the guise of antidemocratic terrorist movements such as ISIS.1 By supporting the development of democracy around the world, we can deny these authoritarian adversaries the geopolitical running room they seek. Just as Russia, China, and Iran are trying to undermine democracies to bend other countries to their will, so too can we contain these autocrats’ ambitions by helping other countries build effective, resilient democracies that can withstand the dictators’ malevolence. Of course, democratically elected governments with open societies will not support the American line on every issue. But no free society wants to mortgage its future to another country. The American national interest would best be secured by a pluralistic world of free countries—one in which autocrats can no longer use corruption and coercion to gobble up resources, alliances, and territory. If you look back over our history to see who has posed a threat to the United States and our allies, it has always been authoritarian regimes and empires. As political scientists have long noted, no two democracies have ever gone to war with each other—ever. It is not the democracies of the world that are supporting international terrorism, proliferating weapons of mass destruction, or threatening the territory of their neighbors.

#### China 5G leadership compromise US military superiority

Borghard et al. 19, \*Erica D. Borghard is an Assistant Professor at the Army Cyber Institute at West Point. Shawn W. \*Lonergan is a U.S. Army Reserve officer assigned to 75th Innovation Command and a Research Scholar at the Army Cyber Institute. (April 25th, 2019, “The Overlooked Military Implications of the 5G Debate”, https://www.cfr.org/blog/overlooked-military-implications-5g-debate)

There are economic implications for which entities can secure the [greatest global market share](https://www.reuters.com/brandfeatures/venture-capital/article?id=61837) of 5G technology. Technological innovation drives economic growth, job creation, and global economic influence. Huawei may have a long-term market advantage over U.S and Western telecoms because the former has been able to offer 5G products at [far cheaper](https://www.nytimes.com/2019/01/26/us/politics/huawei-china-us-5g-technology.html) rates than the latter. Furthermore, there are also concerns that Chinese-built 5G technology is likely to [contain backdoors](https://www.wired.com/story/huawei-case-signals-new-us-china-cold-war-tech/) that could be used to enable [Chinese economic or national security espionage](https://www.cnbc.com/2019/03/05/huawei-would-have-to-give-data-to-china-government-if-asked-experts.html). It is unlikely that Beijing would actively monitor all of the content of the data that comes across Huawei owned or operated infrastructure (although it may collect and analyze metadata). However, it is conceivable that Huawei would get a proverbial “tap on the shoulder” from Beijing to share pertinent information in specific instances. This may include individually targeting senior corporate executives, which is enabled by the millimeter wave frequency that 5G networks employ.

The military applications of 5G technology have vital strategic and battlefield implications for the U.S. Historically, the U.S. military has reaped enormous advantages from employing cutting edge technology on the battlefield. 5G technology holds similar innovative potential. Perhaps most obviously, the next generation of telecommunications infrastructure will have a direct impact on improving military communications. However, it will also produce cascading effects on the development of other kinds of military technologies, such as robotics and artificial intelligence. For instance, artificial intelligence and machine learning capabilities, such as those used in the Department of Defense’s [Project Maven](https://dod.defense.gov/News/Article/Article/1254719/project-maven-to-deploy-computer-algorithms-to-war-zone-by-years-end/), could be greatly enhanced when leveraging the data processing speeds made possible through 5G infrastructure. As an [era of great power competition](https://dod.defense.gov/Portals/1/Documents/pubs/2018-National-Defense-Strategy-Summary.pdf) emerges between the United States and China, the United States has a compelling strategic interest in being at the forefront of these new technologies.

The United States and its allies must also consider the tactical and operational implications on the battlefield of conducting conventional or counterinsurgency operations in an area with Chinese owned or operated 5G infrastructure. This concern stems from the nature of the relationship between Huawei, an [ostensibly private company](https://www.itnews.com.au/news/analysis-who-really-owns-huawei-175946), and the Chinese Communist Party (CCP). While Huawei’s founder and CEO, Ren Zhengfei proclaimed in a February 2019 interview on [CBS This Morning](https://www.cbsnews.com/news/ren-zhengfei-huawei-ceo-says-we-will-never-provide-chinese-government-with-any-information/)that the company never has and never would provide information to the Chinese government, many experts are [skeptical](https://www.cnbc.com/2019/03/05/huawei-would-have-to-give-data-to-china-government-if-asked-experts.html). Under China’s [2017 National Intelligence Law](https://www.reuters.com/article/us-china-security-lawmaking-idUSKBN19I1FW), the CCP has the authority to monitor and investigate domestic and international companies as well as direct organizations to assist with government espionage efforts. As such, it is conceivable that Huawei will be required to hand over its data to the Chinese government for collection and analysis.

Due to this reality, the United States must consider and be prepared to conduct overseas contingency or counterterrorism operations in areas where Chinese telecommunications infrastructure is widely proliferated, thus restricting the United States’ ability to rely on indigenous telecoms. As [noted](https://www.africom.mil/media-room/transcript/31604/gen-joseph-votel-gen-thomas-waldhauser-and-acting-asd-for-international-security-affairs-kathryn) by US AFRICOM Commander General Thomas Waldhauser, this has already become an issue in Africa where Chinese telecommunications companies are poised to dominate. The integrity of U.S. military communications systems that rely on 5G networks could be undermined at key phases of an operation. For example, if the United States is conducting a military operation in an area of interest to China, it is plausible that the Chinese government could leverage Huawei to intercept or even deny military communications. Furthermore, Chinese telecom infrastructure dominance in a theater of operations may limit the U.S. military’s ability to conduct precision targeting that leverages signals intelligence collection on 5G telecommunications networks.

The strategic and battlefield implications of who owns and operates 5G infrastructure around the world underscores the national security importance of 5G. The U.S. government and its allies should more systematically assess both the opportunities and risks associated with conducting future military operations in environments that rely on Chinese technology.

To date, the U.S. government has devoted significant energy to persuading its allies and partners to follow the United States in prohibiting Chinese telecoms, particularly Huawei, from building and/or operating 5G infrastructure. However, its diplomatic approach has been met with varying degrees of success. While some countries such as [Australia](https://www.ft.com/content/e90c3800-aad3-11e8-94bd-cba20d67390c) and [Japan](https://www.reuters.com/article/us-usa-china-huawei-japan/japans-top-three-telcos-to-exclude-huawei-zte-network-equipment-kyodo-idUSKBN1O90JW) have fallen in line with the U.S. stance on Huawei, many others have not. The European Commission’s recent 5G [recommendations](https://www.cyberscoop.com/5g-eu-huawei-cybersecurity-recommendations/) for member states dismissed a ban on Chinese telecoms. British intelligence has reportedly maintained that the security risks associated with Huawei can be [sufficiently managed](https://www.ft.com/content/619f9df4-32c2-11e9-bd3a-8b2a211d90d5), and New Zealand, after [initially bandwagoning](https://www.nytimes.com/2018/11/28/business/huawei-new-zealand-papua-new-guinea.html) with the United States in December 2018, abruptly [reversed course](https://www.bloomberg.com/news/articles/2019-02-18/new-zealand-says-china-s-huawei-hasn-t-been-ruled-out-of-5g-role) in February 2019. This is concerning for the United States because New Zealand and the UK are members of the Five Eyes intelligence-sharing alliance. Many allies have refused an outright ban of Huawei because of the company’s ability to offer 5G products at far cheaper rates than Western telecoms.

It is clear that U.S. diplomatic efforts are not working. The reality is that the bottom line is largely driving decision-making. Therefore, rather than take a purely negative approach, the United States should consider using positive inducements to make its 5G products more appealing. While the United States should not strive to mirror China’s top-down approach to innovation, it should work with allies to use market incentives to make U.S.- and Western-developed 5G infrastructure and products more competitive. Furthermore, the U.S. military needs to anticipate that its use of native telecommunications infrastructure in a future operating environment may be compromised, limited, or denied. The U.S. military will inevitably need greater bandwidth on the tactical edge and this should be an imperative that drives investment in research and development to address this challenge.

Technological innovation was at the crux of the United States’ comparative military and economic advantage in the twentieth century. In this contemporary great power competition, U.S. failure to innovate at the scientific and technological frontier will have direct (and deleterious) effects for the United States on the distribution of power in the international system over the long term.

#### Chinese tech superiority upends deterrence and emboldens them to risk conflict over Taiwan---extinction.

Kroenig 18, Deputy Director for Strategy, Scowcroft Center for Strategy and Security Associate Professor of Government and Foreign Service, Georgetown University (Matthew, Nov 12, 2018, “Will disruptive technology cause nuclear war?” *BAS*, <https://thebulletin.org/2018/11/will-disruptive-technology-cause-nuclear-war>)

Rather, we should think more broadly about how new technology might affect global politics, and, for this, it is helpful to turn to scholarly international relations theory. The dominant theory of the causes of war in the academy is the “bargaining model of war.” This theory identifies rapid shifts in the balance of power as a primary cause of conflict.

International politics often presents states with conflicts that they can settle through peaceful bargaining, but when bargaining breaks down, war results. Shifts in the balance of power are problematic because they undermine effective bargaining. After all, why agree to a deal today if your bargaining position will be stronger tomorrow? And, a clear understanding of the military balance of power can contribute to peace. (Why start a war you are likely to lose?) But shifts in the balance of power muddy understandings of which states have the advantage.

You may see where this is going. New technologies threaten to create potentially destabilizing shifts in the balance of power.

For decades, stability in Europe and Asia has been supported by US military power. In recent years, however, the balance of power in Asia has begun to shift, as China has increased its military capabilities. Already, Beijing has become more assertive in the region, claiming contested territory in the South China Sea. And the results of Russia’s military modernization have been on full display in its ongoing intervention in Ukraine.

Moreover, China may have the lead over the United States in emerging technologies that could be decisive for the future of military acquisitions and warfare, including 3D printing, hypersonic missiles, quantum computing, 5G wireless connectivity, and artificial intelligence (AI). And Russian President Vladimir Putin is building new unmanned vehicles while ominously declaring, “Whoever leads in AI will rule the world.”

If China or Russia are able to incorporate new technologies into their militaries before the United States, then this could lead to the kind of rapid shift in the balance of power that often causes war. If Beijing believes emerging technologies provide it with a newfound, local military advantage over the United States, for example, it may be more willing than previously to initiate conflict over Taiwan. And if Putin thinks new tech has strengthened his hand, he may be more tempted to launch a Ukraine-style invasion of a NATO member.

Either scenario could bring these nuclear powers into direct conflict with the United States, and once nuclear armed states are at war, there is an inherent risk of nuclear conflict through limited nuclear war strategies, nuclear brinkmanship, or simple accident or inadvertent escalation.

This framing of the problem leads to a different set of policy implications. The concern is not simply technologies that threaten to undermine nuclear second-strike capabilities directly, but, rather, any technologies that can result in a meaningful shift in the broader balance of power. And the solution is not to preserve second-strike capabilities, but to preserve prevailing power balances more broadly.

When it comes to new technology, this means that the United States should seek to maintain an innovation edge. Washington should also work with other states, including its nuclear-armed rivals, to develop a new set of arms control and nonproliferation agreements and export controls to deny these newer and potentially destabilizing technologies to potentially hostile states.

These are no easy tasks, but the consequences of Washington losing the race for technological superiority to its autocratic challengers just might mean nuclear Armageddon.

### 1AC---Cybersecurity ADV

#### Advantage 2 is Cybersecurity:

#### Aggressive patent strategies create structural flaws in 5G standardization that imperils domestic cybersecurity---market competition reduces the incidence of vulnerability and severity of attacks.

Duan 20, \*Charles Duan is a senior fellow and associate director of tech & innovation policy at the R Street Institute, where he focuses his research on intellectual property issues; (2020, “OF MONOPOLIES AND MONOCULTURES: THE INTERSECTION OF PATENTS AND NATIONAL SECURITY”, Santa Clara High Technology Law Journal, 36(4), 369-405. Retrieved from <https://www2.lib.ku.edu/login?url=https://www.proquest.com/scholarly-journals/monopolies-monocultures-intersection-patents/docview/2442966690/se-2?accountid=14556>)

III. COMPETITION AND CYBERSECURITY

In addition to the historical review done so far, another approach to understanding the relationship among patents, competition, and national security is to consider the role of cybersecurity. There is little doubt that computer system vulnerabilities that enable hacking and spread of computer exploits are a threat to the nation’s defenses, so better cybersecurity is a key part of national security strategy.155

Strong competition can thus complement national security by enhancing domestic cybersecurity, and patent assertion that unduly weakens competition detracts from cybersecurity.156 Competition promotes better cybersecurity in at least two ways. First, multiple studies show that competition encourages firms to improve their products on multiple vectors including cybersecurity. Second, competition avoids a situation that security experts call a “monoculture,” which increases vulnerability to severe cyberattacks. As former Secretary of Homeland Security Michael Chertoff wrote recently, “We need competition and multiple providers, not a potentially vulnerable technological monoculture,” to guarantee national security.157 Thus, cybersecurity provides a useful lens for understanding how unfettered patent assertion and licensing can detract from national security.

A. Cybersecurity as Competitive Value-Add

Competition enhances national security by reducing the incidence of technical vulnerabilities. That effect is especially important for security sensitive systems such as mobile telecommunications.

Intuitively, a causal chain from competition to cybersecurity makes logical sense. Computer security is a value-added benefit to consumers, so firms in competitive markets are likely to use security to gain an edge over their competitors.158 In monopolized markets, though, there may be less external impetus to test products for flaws, and the monopolist may choose to focus less on security and more on new product features or increased product quality.

Economic research confirms these hypotheses about competition leading to better cybersecurity. A 2009 empirical study of web browsers considered the impact of market concentration on the amount of time that vendors took to fix security vulnerabilities as they were discovered.159 The study found that the presence of more competitors correlated with faster cybersecurity response—a reduction of 8–10 days in response time per additional market rival.160 Similarly, business researchers in 2005 modeled incentives for firms to engage in sharing of cybersecurity information, and concluded that the “inclination to share information and invest in security technologies increases as the degree of competitiveness in an industry increases.”161 Another study found that, where two software firms are in competition, at least one will be willing to take on some degree of risk and responsibility for cybersecurity, whereas a monopoly software firm will consistently fail to accept such responsibility.162 To be sure, an unpublished study from 2017 found that some market concentration can make firms more responsive to cybersecurity issues, but only to a point: “being in a dominant position reduces the positive effect of having less competitors on the responsiveness of the vendor,” and indeed the “more dominant the firm is, the less rapid it is in releasing security patches.”163 This research confirms that competition is more conducive to cybersecurity.

It is not hard to see how this applies to emerging communication technologies markets. In the absence of competition, the above research suggests that device manufacturers, chip makers, and software developers will lack incentives to respond to vulnerabilities, to share information about cybersecurity practices and issues, and to take responsibility for security matters. Mobile phone chips have had their share of cybersecurity failures already.164 The best way to flush out ongoing and future cybersecurity issues is to maintain competitive pressure at all levels of the supply chain.

B. Vulnerabilities of “Monocultures”

A second reason why monopoly undermines cybersecurity is that monopoly leads to a “monoculture” of single-vendor products, opening the door to massive systemic failure in the case of a cyberattack. Computer researchers developed the theory of software monocultures in the early 2000s, in response to the regular phenomenon of computer viruses and other attacks spreading rapidly by exploiting flaws in the dominant operating system at the time, Microsoft Windows.165 Where a computer system such as Windows has a commanding share of users, a virus that exploits a flaw in that system can quickly spread to infect a whole interconnected ecosystem. An operating system monopoly thus enables fast and easy spread of cyberattacks, and better cybersecurity would be achieved through greater diversity in online systems.166 As one research group posited, “a network architecture that supports a collection of heterogeneous network elements for the same functional capability offers a greater possibility of surviving security attacks as compared to homogeneous networks.”167

There has been considerable study of the theory that computer monocultures are naturally more vulnerable to attacks.168 In one study, computer science researchers reviewed a catalog of 6,340 software vulnerabilities recorded in 2007, to compare whether comparable software would share the same flaws.169 Of the 2,627 vulnerabilities applicable to application software (as opposed to operating systems, web scripts, and other software components), only 29 (1.1%) applied to substitute products from different vendors but providing the same functionality.170 By contrast, different versions of a single software product were found to share vulnerabilities 84.7% of the time.171 Thus, software monocultures share exploitable flaws even when there is some variation in versions across the monoculture; by contrast, diversity in software is almost guaranteed to prevent a single flaw from affecting all users.

In the case of 5G and wireless mobile communications, a monoculture is an especially concerning possibility. To the extent that systems such as smart city sensors or communication networks are widely deployed in a monoculture fashion, a widespread attack could have devastating consequences, potentially blacking out a region and affecting essential services such as 911.172 A monoculture that is vulnerable to so-called “rootkits” or “backdoors”—maliciously installed software that enable bad actors to commandeer systems—could also enable mass surveillance or spying by private hackers or foreign governments.173 The presence of systems from multiple vendors would mitigate these possibilities.

#### Actors have the means and motivations to strike critical infrastructure.

Wintch 21, \*Timothy M. Wintch, an active-duty Major in the United States Air Force. He is currently a graduate student at the Oettinger School of Science & Technology Intelligence, National Intelligence University, in Bethesda, Maryland. Mr. Wintch has over 11 years of experience in command-and-control operations as an Air Battle Manager. He holds a Bachelor of Arts in Politics from the University of California, Santa Cruz, and a Master of Arts in Military Studies from American Military University. (April 20th, 2021, “PERSPECTIVE: Cyber and Physical Threats to the U.S. Power Grid and Keeping the Lights on”, https://www.hstoday.us/subject-matter-areas/infrastructure-security/perspective-cyber-and-physical-threats-to-the-u-s-power-grid-and-keeping-the-lights-on/)

Among critical infrastructure sectors in the U.S., energy is perhaps the most crucial of the 16 sectors defined by the Department of Homeland Security. This sector is so vital because it provides the energy necessary to run every other critical infrastructure sector. However, the U.S. power grid, the backbone of the energy sector, is built upon an aging skeleton that is becoming increasingly vulnerable every day. Whether from terrorists or nation-states like Russia and China, the power grid is susceptible to not just physical attacks, but also to cyber intrusion as well. However, much of this threat can be mitigated if the U.S. takes the appropriate steps to safeguard the power grid and avoid a potential catastrophe in the future.

Since Sept. 11, 2001, terrorism on U.S. soil has been at the forefront of American consciousness. Critical infrastructure provides an appealing target because of the disproportionally large impact even a small attack can have on the sectors. In particular, the power grid represents a particularly lucrative target, both in terms of the ease of access and the large impact it can make. The National Research Council stated that the U.S. power grid is “vulnerable to intelligent multi-site attacks by knowledgeable attackers intent on causing maximum physical damage to key components on a wide geographical scale.”[[1]](https://www.hstoday.us/subject-matter-areas/infrastructure-security/perspective-cyber-and-physical-threats-to-the-u-s-power-grid-and-keeping-the-lights-on/" \l "_ftn1) Additionally, the physical security of transmission and distribution systems is difficult due to the dispersed nature of these key components, which in turn is advantageous to attackers as it reduces the likelihood of their capture.[[2]](https://www.hstoday.us/subject-matter-areas/infrastructure-security/perspective-cyber-and-physical-threats-to-the-u-s-power-grid-and-keeping-the-lights-on/" \l "_ftn2) From 2002-2012, approximately 2,500 physical attacks occurred against transmission lines and towers worldwide and approximately 500 attacks against transformer substations.[[3]](https://www.hstoday.us/subject-matter-areas/infrastructure-security/perspective-cyber-and-physical-threats-to-the-u-s-power-grid-and-keeping-the-lights-on/" \l "_ftn3) Terrorists have the motivation to attack the U.S. power grid but the very nature of the grid makes it highly vulnerable. The power grid is not only at risk from physical attacks, but also nation-state cyberattacks.

One nation that has shown both the capability and intent to use attacks against critical energy infrastructure is Russia, as demonstrated in their 2015 annexation of Crimea from Ukraine. A Russian cyber threat group known as Sandworm, which used its BlackEnergy malware, attacked Ukrainian computer systems that provide remote control of the Ukraine power grid.[[4]](https://www.hstoday.us/subject-matter-areas/infrastructure-security/perspective-cyber-and-physical-threats-to-the-u-s-power-grid-and-keeping-the-lights-on/" \l "_ftn4) This attack, and another in 2016, each left the capital Kiev without power, prompting cyber experts to raise concern about the same malware already existing in NATO and the U.S. power grids.[[5]](https://www.hstoday.us/subject-matter-areas/infrastructure-security/perspective-cyber-and-physical-threats-to-the-u-s-power-grid-and-keeping-the-lights-on/" \l "_ftn5) In any conflict between Russia and NATO, not only would similar cyberattacks pose a threat, but so would potential physical attacks severing fuel oil and natural gas lines to Western Europe. Russia has both the capability and intent to attack critical infrastructure, particularly power grids, during future conflicts in their “hybrid warfare” approach.

Another nation that has the capability to attack critical energy infrastructure is China, representing a threat to not just the U.S. energy infrastructure but also that of our allies whose support would be vital in a major conflict. A recent NATO report highlighted this threat from China’s Belt and Road Initiative, stating that “[China’s] foreign direct investment in strategic sectors [such as energy generation and distribution] …raises questions about whether access and control over such infrastructure can be maintained, particularly in crisis when it would be required to support the military.”[[6]](https://www.hstoday.us/subject-matter-areas/infrastructure-security/perspective-cyber-and-physical-threats-to-the-u-s-power-grid-and-keeping-the-lights-on/" \l "_ftn6) Like Russia, China has been active with cyber intrusions in U.S. energy infrastructure. The Mission Support Center at Idaho National Laboratory characterized these as attacks as “multiple intrusions into US ICS/SCADA [Industrial Control Systems/Supervisory Control and Data Acquisition] and smart grid tools [that] may be aimed more at intellectual property theft and gathering intelligence to bolster their own infrastructure, but it is likely that they are also using these intrusions to develop capabilities to attack the [bulk electric system], as well.”[[7]](https://www.hstoday.us/subject-matter-areas/infrastructure-security/perspective-cyber-and-physical-threats-to-the-u-s-power-grid-and-keeping-the-lights-on/" \l "_ftn7) China, therefore, has both the capability and intent to conduct cyber intrusions and attacks for myriad reasons.

Another arm of this threat is the reliance the U.S. energy industry has on imports from China, especially transformers. In early 2020, federal officials seized a transformer in the port of Houston that had been imported by the Jiangsu Huapeng Transformer Company before sending it to Sandia National Laboratory in Albuquerque. Sandia is contracted by the U.S. Department of Energy for mitigating national security threats.[[8]](https://www.hstoday.us/subject-matter-areas/infrastructure-security/perspective-cyber-and-physical-threats-to-the-u-s-power-grid-and-keeping-the-lights-on/" \l "_ftn8) The Wall Street Journal reported that “Mike Howard, chief executive of the Electric Power Research Institute, a utility-funded technical organization, said that the diversion of a huge, expensive transformer is so unusual – in his experience, unprecedented – that it suggests officials had significant security concerns.”[[9]](https://www.hstoday.us/subject-matter-areas/infrastructure-security/perspective-cyber-and-physical-threats-to-the-u-s-power-grid-and-keeping-the-lights-on/" \l "_ftn9) Previously destined for the Washington Area Power Administration’s Ault, Colo., substation, the transformer is believed to have been seized due to “backdoor” exploitable hardware emplaced by the Chinese prior to shipment.[[10]](https://www.hstoday.us/subject-matter-areas/infrastructure-security/perspective-cyber-and-physical-threats-to-the-u-s-power-grid-and-keeping-the-lights-on/" \l "_ftn10) Shortly after these events, President Trump issued Executive Order 13920, “[Securing the United States Bulk-Power System](https://trumpwhitehouse.archives.gov/presidential-actions/executive-order-securing-united-states-bulk-power-system/),” essentially limiting the import of Chinese-built critical energy infrastructure components due to concerns about cybersecurity.[[11]](https://www.hstoday.us/subject-matter-areas/infrastructure-security/perspective-cyber-and-physical-threats-to-the-u-s-power-grid-and-keeping-the-lights-on/" \l "_ftn11) Interestingly, Jiangsu Huapeng “boasted that it supported 10 percent of New York City’s electricity load.”[[12]](https://www.hstoday.us/subject-matter-areas/infrastructure-security/perspective-cyber-and-physical-threats-to-the-u-s-power-grid-and-keeping-the-lights-on/" \l "_ftn12)

Franklin Kramer, the former Assistant Secretary of Defense for International Security Affairs, testified before a U.S. House of Representatives Energy and Commerce subcommittee during an energy and power hearing in 2011 and said that a “highly-coordinated and structured cyber, physical, or blended attack on the bulk power system, however, could result in long-term (irreparable) damage to key system components in multiple simultaneous or near-simultaneous strikes.” He added that “an outage could result with the potential to affect a wide geographic area and cause large population centers to lose power for extended periods.”[[13]](https://www.hstoday.us/subject-matter-areas/infrastructure-security/perspective-cyber-and-physical-threats-to-the-u-s-power-grid-and-keeping-the-lights-on/" \l "_ftn13) Even the inclusion of features such as smart grids to the overall grid structure poses new vulnerabilities through their connectivity. Kramer stated that “such connectivity means that the distribution system could be a key vector for a national security attack on the grid.”[[14]](https://www.hstoday.us/subject-matter-areas/infrastructure-security/perspective-cyber-and-physical-threats-to-the-u-s-power-grid-and-keeping-the-lights-on/" \l "_ftn14)

#### Those attacks cause accidental nuclear escalation.

Klare 19, \*Michael T. Klare is a professor emeritus of peace and world security studies at Hampshire College and senior visiting fellow at the Arms Control Association; (November 19th, “Cyber Battles, Nuclear Outcomes? Dangerous New Pathways to Escalation”, https://www.armscontrol.org/act/2019-11/features/cyber-battles-nuclear-outcomes-dangerous-new-pathways-escalation)

Yet another pathway to escalation could arise from a cascading series of cyberstrikes and counterstrikes against vital national infrastructure rather than on military targets. All major powers, along with Iran and North Korea, have developed and deployed cyberweapons designed to disrupt and destroy major elements of an adversary’s key economic systems, such as power grids, financial systems, and transportation networks. As noted, Russia has infiltrated the U.S. electrical grid, and it is widely believed that the United States has done the same in Russia.[12](https://www.armscontrol.org/act/2019-11/features/cyber-battles-nuclear-outcomes-dangerous-new-pathways-escalation#endnote12) The Pentagon has also devised a plan known as “Nitro Zeus,” intended to immobilize the entire Iranian economy and so force it to capitulate to U.S. demands or, if that approach failed, to pave the way for a crippling air and missile attack.[13](https://www.armscontrol.org/act/2019-11/features/cyber-battles-nuclear-outcomes-dangerous-new-pathways-escalation#endnote12)

The danger here is that economic attacks of this sort, if undertaken during a period of tension and crisis, could lead to an escalating series of tit-for-tat attacks against ever more vital elements of an adversary’s critical infrastructure, producing widespread chaos and harm and eventually leading one side to initiate kinetic attacks on critical military targets, risking the slippery slope to nuclear conflict. For example, a Russian cyberattack on the U.S. power grid could trigger U.S. attacks on Russian energy and financial systems, causing widespread disorder in both countries and generating an impulse for even more devastating attacks. At some point, such attacks “could lead to major conflict and possibly nuclear war.”[14](https://www.armscontrol.org/act/2019-11/features/cyber-battles-nuclear-outcomes-dangerous-new-pathways-escalation#endnote14)

These are by no means the only pathways to escalation resulting from the offensive use of cyberweapons. Others include efforts by third parties, such as proxy states or terrorist organizations, to provoke a global nuclear crisis by causing early-warning systems to generate false readings (“spoofing”) of missile launches. Yet, they do provide a clear indication of the severity of the threat. As states’ reliance on cyberspace grows and cyberweapons become more powerful, the dangers of unintended or accidental escalation can only grow more severe.

#### Cyber-compromised NC3 causes nuclear war.

Klare 19, \*Michael T. Klare is a professor emeritus of peace and world security studies at Hampshire College and senior visiting fellow at the Arms Control Association; (November 19th, “Cyber Battles, Nuclear Outcomes? Dangerous New Pathways to Escalation”, <https://www.armscontrol.org/act/2019-11/features/cyber-battles-nuclear-outcomes-dangerous-new-pathways-escalation>)

The Nuclear-Cyber Connection

These links exist because the NC3 systems of the United States and other nuclear-armed states are heavily dependent on computers and other digital processors for virtually every aspect of their operation and because those systems are highly vulnerable to cyberattack. Every nuclear force is composed, most basically, of weapons, early-warning radars, launch facilities, and the top officials, usually presidents or prime ministers, empowered to initiate a nuclear exchange. Connecting them all, however, is an extended network of communications and data-processing systems, all reliant on cyberspace. Warning systems, ground- and space-based, must constantly watch for and analyze possible enemy missile launches. Data on actual threats must rapidly be communicated to decision-makers, who must then weigh possible responses and communicate chosen outcomes to launch facilities, which in turn must provide attack vectors to delivery systems. All of this involves operations in cyberspace, and it is in this domain that great power rivals seek vulnerabilities to exploit in a constant struggle for advantage.

The use of cyberspace to gain an advantage over adversaries takes many forms and is not always aimed at nuclear systems. China has been accused of engaging in widespread cyberespionage to steal technical secrets from U.S. firms for economic and military advantages. Russia has been accused, most extensively in the Robert Mueller report, of exploiting cyberspace to interfere in the 2016 U.S. presidential election. Nonstate actors, including terrorist groups such as al Qaeda and the Islamic State group, have used the internet for recruiting combatants and spreading fear. Criminal groups, including some thought to be allied with state actors, such as North Korea, have used cyberspace to extort money from banks, municipalities, and individuals.[4](https://www.armscontrol.org/act/2019-11/features/cyber-battles-nuclear-outcomes-dangerous-new-pathways-escalation#endnote04) Attacks such as these occupy most of the time and attention of civilian and military cybersecurity organizations that attempt to thwart such attacks. Yet for those who worry about strategic stability and the risks of nuclear escalation, it is the threat of cyberattacks on NC3 systems that provokes the greatest concern.

This concern stems from the fact that, despite the immense effort devoted to protecting NC3 systems from cyberattack, no enterprise that relies so extensively on computers and cyberspace can be made 100 percent invulnerable to attack. This is so because such systems employ many devices and operating systems of various origins and vintages, most incorporating numerous software updates and “patches” over time, offering multiple vectors for attack. Electronic components can also be modified by hostile actors during production, transit, or insertion; and the whole system itself is dependent to a considerable degree on the electrical grid, which itself is vulnerable to cyberattack and is far less protected. Experienced “cyberwarriors” of every major power have been working for years to probe for weaknesses in these systems and in many cases have devised cyberweapons, typically, malicious software (malware) and computer viruses, to exploit those weaknesses for military advantage.[5](https://www.armscontrol.org/act/2019-11/features/cyber-battles-nuclear-outcomes-dangerous-new-pathways-escalation#endnote05)

Although activity in cyberspace is much more difficult to detect and track than conventional military operations, enough information has become public to indicate that the major nuclear powers, notably China, Russia, and the United States, along with such secondary powers as Iran and North Korea, have established extensive cyberwarfare capabilities and engage in offensive cyberoperations on a regular basis, often aimed at critical military infrastructure. “Cyberspace is a contested environment where we are in constant contact with adversaries,” General Paul M. Nakasone, commander of the U.S. Cyber Command (Cybercom), told the Senate Armed Services Committee in February 2019. “We see near-peer competitors [China and Russia] conducting sustained campaigns below the level of armed conflict to erode American strength and gain strategic advantage.”

Although eager to speak of adversary threats to U.S. interests, Nakasone was noticeably but not surprisingly reluctant to say much about U.S. offensive operations in cyberspace. He acknowledged, however, that Cybercom took such action to disrupt possible Russian interference in the 2018 midterm elections. “We created a persistent presence in cyberspace to monitor adversary actions and crafted tools and tactics to frustrate their efforts,” he testified in February. According to press accounts, this included a cyberattack aimed at paralyzing the Internet Research Agency, a “troll farm” in St. Petersburg said to have been deeply involved in generating disruptive propaganda during the 2016 presidential elections.[6](https://www.armscontrol.org/act/2019-11/features/cyber-battles-nuclear-outcomes-dangerous-new-pathways-escalation#endnote06)

Other press investigations have disclosed two other offensive operations undertaken by the United States. One called “Olympic Games” was intended to disrupt Iran’s drive to increase its uranium-enrichment capacity by sabotaging the centrifuges used in the process by infecting them with the so-called Stuxnet virus. Another left of launch effort was intended to cause malfunctions in North Korean missile tests.[7](https://www.armscontrol.org/act/2019-11/features/cyber-battles-nuclear-outcomes-dangerous-new-pathways-escalation#endnote07) Although not aimed at either of the U.S. principal nuclear adversaries, those two attacks demonstrated a willingness and capacity to conduct cyberattacks on the nuclear infrastructure of other states.

Efforts by strategic rivals of the United States to infiltrate and eventually degrade U.S. nuclear infrastructure are far less documented but thought to be no less prevalent. Russia, for example, is believed to have planted malware in the U.S. electrical utility grid, possibly with the intent of cutting off the flow of electricity to critical NC3 facilities in the event of a major crisis.[8](https://www.armscontrol.org/act/2019-11/features/cyber-battles-nuclear-outcomes-dangerous-new-pathways-escalation#endnote08) Indeed, every major power, including the United States, is believed to have crafted cyberweapons aimed at critical NC3 components and to have implanted malware in enemy systems for potential use in some future confrontation.

Pathways to Escalation

Knowing that the NC3 systems of the major powers are constantly being probed for weaknesses and probably infested with malware designed to be activated in a crisis, what does this say about the risks of escalation from a nonkinetic battle, that is, one fought without traditional weaponry, to a kinetic one, at first using conventional weapons and then, potentially, nuclear ones? None of this can be predicted in advance, but those analysts who have studied the subject worry about the emergence of dangerous new pathways for escalation. Indeed, several such scenarios have been identified.[9](https://www.armscontrol.org/act/2019-11/features/cyber-battles-nuclear-outcomes-dangerous-new-pathways-escalation#endnote09)

The first and possibly most dangerous path to escalation would arise from the early use of cyberweapons in a great power crisis to ~~paralyze~~ undermine the vital command, control, and communications capabilities of an adversary, many of which serve nuclear and conventional forces. In the “fog of war” that would naturally ensue from such an encounter, the recipient of such an attack might fear more punishing follow-up kinetic attacks, possibly including the use of nuclear weapons, and, fearing the loss of its own arsenal, launch its weapons immediately. This might occur, for example, in a confrontation between NATO and Russian forces in east and central Europe or between U.S. and Chinese forces in the Asia-Pacific region.

Speaking of a possible confrontation in Europe, for example, James N. Miller Jr. and Richard Fontaine wrote that “both sides would have overwhelming incentives to go early with offensive cyber and counter-space capabilities to negate the other side’s military capabilities or advantages.” If these early attacks succeeded, “it could result in huge military and coercive advantage for the attacker.” This might induce the recipient of such attacks to back down, affording its rival a major victory at very low cost. Alternatively, however, the recipient might view the attacks on its critical command, control, and communications infrastructure as the prelude to a full-scale attack aimed at neutralizing its nuclear capabilities and choose to strike first. “It is worth considering,” Miller and Fontaine concluded, “how even a very limited attack or incident could set both sides on a slippery slope to rapid escalation.”[10](https://www.armscontrol.org/act/2019-11/features/cyber-battles-nuclear-outcomes-dangerous-new-pathways-escalation#endnote10)

What makes the insertion of latent malware in an adversary’s NC3 systems so dangerous is that it may not even need to be activated to increase the risk of nuclear escalation. If a nuclear-armed state comes to believe that its critical systems are infested with enemy malware, its leaders might not trust the information provided by its early-warning systems in a crisis and might misconstrue the nature of an enemy attack, leading them to overreact and possibly launch their nuclear weapons out of fear they are at risk of a preemptive strike.

“The uncertainty caused by the unique character of a cyber threat could jeopardize the credibility of the nuclear deterrent and undermine strategic stability in ways that advances in nuclear and conventional weapons do not,” Page O. Stoutland and Samantha Pitts-Kiefer wrote in 2018 paper for the Nuclear Threat Initiative. “[T]he introduction of a flaw or malicious code into nuclear weapons through the supply chain that compromises the effectiveness of those weapons could lead to a lack of confidence in the nuclear deterrent,” undermining strategic stability.[11](https://www.armscontrol.org/act/2019-11/features/cyber-battles-nuclear-outcomes-dangerous-new-pathways-escalation#endnote11) Without confidence in the reliability of its nuclear weapons infrastructure, a nuclear-armed state may misinterpret confusing signals from its early-warning systems and, fearing the worst, launch its own nuclear weapons rather than lose them to an enemy’s first strike. This makes the scenario proffered in the 2018 NPR report, of a nuclear response to an enemy cyberattack, that much more alarming.

### 1AC---Solvency

#### Plan: The United States federal government should substantially increase prohibitions on private sector conduct that is more restrictive of competition than reasonably necessary to enable creation of information technology standards.

#### The plan requires SSO’s to administer reasonable action to prohibit ex post opportunism---that strengthens FRAND effectiveness while enabling SEP holders to capture appropriate royalties---which is the best competition-innovation balance.

Melamed & Shapiro 18, \*A. Douglas Melamed is Professor of the Practice of Law at Stanford Law School; \*Carl Shapiro is the Transamerica Professor of Business Strategy at the Haas School of Business at the University of California at Berkeley; (May 2018, “How Antitrust Law Can Make FRAND Commitments More Effective”, https://www-cdn.law.stanford.edu/wp-content/uploads/2018/05/How-Antitrust-Law-Can-Make-FRAND-Commitments-More-Effective.pdf)

3. Application of the Basic Legal Principles

The antitrust principle is straightforward: industry-wide collaboration through SSOs to establish procompetitive standards is permitted only if it is no more restrictive of competition than reasonably necessary to enable creation of the standards. When standard setting predictably creates technology monopolies that, if unrestrained, will enable anticompetitive ex post opportunism that would otherwise not occur, an SSO that does not take effective measures to pre- vent or minimize such ex post opportunism engages in conduct that is more restrictive of competition than necessary. In that case, the SSO and, in appropriate cases, its members, may well violate Section 1 of the Sherman Act.

Under this principle, SSO procedures and FRAND rules should be evaluated based on whether they lead to reasonable SEP royalties, using the competitive ex ante licensing standard discussed above, which has been adopted by the courts in patent law. Put differently, FRAND rules should be evaluated based on their ability to prevent SEP holders from obtaining more than the ex ante value of their technology from implementers.

This limitation would not prevent a SEP holder from proﬁting, perhaps greatly, from participating in the SSO and having its patented technology included in the standard. The SEP holder continues to be rewarded for its technology because the inclusion of its technology in the standard can still greatly increase the volume of licensing opportunities available to the SEP holder.

Whether a particular set of FRAND rules are sufficiently effective in preventing ex post opportunism will depend on the particular circumstances. The procedural unfolding of the case will also depend upon the circumstances. As a general matter, the case would probably be structured as an ordinary Rule of Reason case.82

First, the plaintiff would have to demonstrate harm to competition as a result of the collaboration of the SSO’s members, many of which compete with one another. In this case, the harm to competition would stem from the ability of the SEP holder to exercise monopoly power by obtaining royalties in excess of the competitive, ex ante level. The decision to include patented technologies in the standard would be the allegedly unlawful agreement. Notably, the court need not determine what a FRAND royalty is; it would suffice to determine that market power has been created or exercised, and that existing SSO rules and policies were not adequate to prevent the competitive harm. The defendant, which could be the SSO or perhaps one or more SSO members, would win at this point if the plaintiff failed to show harm to competition. If might fail if the standard faces substantial competition and the court concludes that the SEP holder therefore does not have market power or if the SSO’s rules and policies are found to be effective in preventing ex post opportunism, even if the plaintiff or even the court thinks that other rules and policies would be preferable.

Second, if the plaintiff makes the requisite showing of harm to competition, the defendant(s) would then have to show some procompetitive justiﬁcation— in this case, the beneﬁts of the standard. These two initial steps should be straightforward.

Third, if as is likely the defendant is able to show a procompetitive justiﬁcation, the plaintiff would have to show that the SSO could have used available, reasonable alternatives to realize the efficiency beneﬁts with less or none of the competitive harms. The plaintiff might identify reasonable alternatives that would have led to a different standard, based on including unpatented technology in the standard or perhaps involving fewer SEPs or fewer owners of SEPs, which would be less subject to patent holdup. More likely, the plaintiff could suggest alternative SSO rules that would not change the standard, but would reduce the likelihood or extent of ex post opportunism. For example, the plaintiff might suggest more rigorous FRAND-type rules, such as rules that set forth more precise principles on which FRAND royalties are to be determined and the circumstances under which SEP holders might seek injunctions.

Fourth, the burden would then shift to the defendant(s) to show that the beneﬁts of the standard could not have been realized if the SSO had adopted any of the proffered alternatives or that those alternatives were unrealistic.83 The plaintiff would be entitled to judgment if the court concludes that those beneﬁts could have been realized with less competitive harm if the SSO had adopted the standard with different IPR rules or policies.

Our overall sense, based on experience and the empirical literature, is that the extant FRAND rules are generally useful, but tend to be inadequate because they are imprecise and leave unresolved such critical issues as (a) the meaning of a reasonable royalty, even conceptually; (b) the meaning of “non-discriminatory;” (c) to whom licenses must be offered; and (d) under what circumstances may a SEP holder obtain an injunction.84 These imprecise FRAND commitments are therefore not sufficient to adequately prevent ex post opportunism. The recent revisions to IEEE’s FRAND policy represent a signiﬁcant step in the right direction, but even this advance leaves important questions unanswered.85 If FRAND rules are inadequate in these ways, litigation involving extant FRAND rules would likely be resolved only at the ﬁnal, fourth step. The defendant would be able to demonstrate the beneﬁts created by the standard; the plaintiff would be able to demonstrate the creation of market power and that other reasonable and practical rules or policies would ameliorate the problem. The case would thus turn on whether the defendant is able to demonstrate that signiﬁcant beneﬁts associated with standardization could not have been realized if the SSO had adopted those other rules or policies.

The court would have available a variety of possible remedies if the plaintiff prevails. Implementers that paid supracompetitive royalties or were unlawfully excluded in whole or in part from product markets as a result of the inadequate FRAND policies would be entitled to damages and, in some cases, to treble damages.86 If the unlawful SSO conduct is regarded as the collective action of the SSO and its members, which is likely to be the case in most instances, SSO members would be jointly and severally liable for the damages. Forward-looking injunctive relief aimed at restoring competition would need to be fashioned to the requirements of the individual case. For example, a court could order the SSO to adopt a new rule or policy proposed by the plaintiff. If the court is reluctant to take on that governance role, it might give the SSO a period of time—maybe ninety days—to develop a rule, subject to the court’s ultimate approval, which would adequately ameliorate the competitive problem created by the SSO. Alternatively or in addition, the court might order the parties to attempt to negotiate a rule or policy on which they can agree. And, depending on the circumstances, the court might order SEP holders, including at least those that were defendants in the case, to comply with the new SSO rules and policies.

#### Threatening antitrust liability lures SSO’s into adopting best practices.

Lemley & Shapiro 13, \*Mark Lemley is the William H. Neukom Professor at Stanford Law School and a partner at Durie Tangri LLP; \*Carl Shapiro is the Transamerica Professor of Business Strategy at the Haas School of Business, University of California at Berkeley and a Senior Consultant at Charles River Associates; (2013, “A SIMPLE APPROACH TO SETTING REASONABLE ROYALTIES FOR STANDARD-ESSENTIAL PATENTS”, (https://faculty.haas.berkeley.edu/shapiro/frand.pdf)

Under our approach, many of these issues should become moot, since the patentee cannot obtain an injunction (or transfer the patent to someone who can) against a willing licensee, and since competitors are not involved in jointly setting the reasonable royalty rate. If SSOs set clear, reasonable rules following the best practices we recommend, and parties follow those rules, there should be little or no need for antitrust to intervene. Indeed, even the risk of non-disclosure of a patent is lessened, since the patentee has committed to license its essential patents whether or not it discloses them. For the most part, the rules we have described are self-executing, meaning that even if a party tries to break the rules set by the SSO there still may be no need for antitrust to intervene. Thus, we suggest that parties who abide by these procedures—patentees, implementers, and the SSOs themselves—should be immune from antitrust liability for activities that merely follow those rules.107 They have entered into an arrangement that is on balance good for competition, one that allows patentees to receive reasonable royalties but prevents holdup and reduces the risk of monopolization by trickery.

The fact that antitrust remains a last resort available when SSOs don’t follow best practices may have two practical benefits, however. First, under our approach the promise of avoiding the risk of antitrust liability will be a powerful incentive for both SSOs and patent owners to adopt the best practices we propose. Second, the risk of antitrust liability may be relevant when an individual patentee wants to adopt best practices but the SSO governing the standard has not yet done so. We propose that a patentee that unilaterally commits to the FRAND procedures we describe here should be immune from antitrust liability for following these procedures.108 A patentee’s unilateral binding commitment to arbitration could be enforced whether or not it was elicited by an SSO. Thus, just as the prospect of antitrust immunity might lure SSOs to adopt best practices, it might also lure patentees to implement those practices even if the SSO has not done so. Given the large number of standard-essential patents based on preexisting standards,109 and given that SSOs tend to update their IP rules rather slowly,110 this is not a small matter.

# 2ac

## Case

### Adv 1- FRAND

### Adv 2- Cyber

## k

### 2AC---Framework

### 2AC---Perms

### 2AC---Util

#### Weigh impacts using expected value, or magnitude times probability---it’s the only to ethically account for the underappreciated risk of high-magnitude threats.

Harris 17, \*John Harris is Politico’s editor-in-chief and author of The Survivor: Bill Clinton in the White House; \*Bryan Bender is Politico’s national security editor and author of You Are Not Forgotten. Both Harris and Bender covered the Pentagon during the tenure of Secretary of Defense William J. Perry; (January 6th, 2017, “Bill Perry Is Terrified. Why Aren’t You?”, https://www.politico.com/magazine/story/2017/01/william-perry-nuclear-weapons-proliferation-214604/)

And there’s one other difference from the Cold War: Americans no longer think about the threat every day.

Nuclear war isn’t the subtext of popular movies, or novels; disarmament has fallen far from the top of the policy priority list. The largest upcoming generation, the millennials, were raised in a time when the problem felt largely solved, and it’s easy for them to imagine it’s still quietly fading into history. The problem is, it’s no longer fading. “Today, the danger of some sort of a nuclear catastrophe is greater than it was during the Cold War,” Perry said in an interview in his Stanford office, “and most people are blissfully unaware of this danger.”

It is a turn of events that has an old man newly obsessed with a question: Why isn’t everyone as terrified as he is?

Perry’s hypothesis for the disconnect is that much of the population, especially that rising portion with no clear memories of the first Cold War, is suffering from a deficit of comprehension. Even a single nuclear explosion in a major city would represent an abrupt and possibly irreversible turn in modern life, upending the global economy, forcing every open society to suspend traditional liberties and remake itself into a security state. “The political, economic and social consequences are beyond what people understand,” Perry says. And yet many people place this scenario in roughly the same category as the meteor strike that supposedly wiped out the dinosaurs—frightening, to be sure, but something of an abstraction.

So Perry regards his last great contribution of a 65-year career as a crusade to stimulate the public imagination—to share the vivid details of his own nightmares. He is doing so in a recent memoir, in a busy public speaking schedule, in half-empty hearing rooms on Capitol Hill, and increasingly with an online presence aimed especially at young people. He has enlisted the help of his 28-year-old granddaughter to figure out how to engage a new generation, including [through a series of virtual lectures](https://lagunita.stanford.edu/courses/course-v1:Engineering+NuclearBrink+Fall2016/about) known as a MOOC, or massive open online course. He is eagerly signing up for “Ask Me Anything” chats on Reddit, in which some people still confuse him with William “The Refrigerator” Perry of NFL fame. He posts his ruminations on YouTube, where they give Katy Perry no run for her money, even as the most popular are closing in on 100,000 views. One of the nightmare scenarios Perry invokes most often is designed to roust policymakers who live and work in the nation’s capital. The terrorists would need enriched uranium. Due to the elaborate and highly industrial nature of production, hard to conceal from surveillance, fissile material is still hard to come by—but, alas, far from impossible. Once it is procured, with help from conspirators in a poorly secured overseas commercial power centrifuge facility, the rest of the plot as Perry imagines it is no great technological or logistical feat. The mechanics of building a crude nuclear device are easily within the reach of well-educated and well-funded militants. The crate would arrive at Dulles International Airport, disguised as agricultural freight. The truck bomb that detonates on Pennsylvania Avenue between the White House and Capitol instantly kills the president, vice president, House speaker, and 80,000 others. Where exactly is your office? Your house? And then, as Perry spins it forward, how credible would you find the warnings, soon delivered to news networks, that five more bombs are set to explode in unnamed U.S. cities, once a week for the next month, unless all U.S. military personnel overseas are withdrawn immediately? If this particular scenario does not resonate with you, Perry can easily rattle off a long roster of others—a regional war that escalates into a nuclear exchange, a miscalculation between Moscow and Washington, a computer glitch at the exact wrong moment. They are all ilks of the same theme—the dimly understood threat that the science of the 20th century is set to collide with the destructive passions of the 21st. “We’re going back to the kind of dangers we had during the Cold War,” Perry said. “I really thought in 1990, 1991, 1992, that we left those behind us. We’re starting to re-invent them. We and the Russians and others don’t understand that what we’re doing is re-creating those dangers—or maybe they don’t remember the dangers. For younger people, they didn’t live through those dangers. But when you live through a Cuban Missile Crisis up close and you live through a false alarm up close, you do understand how dangerous it is, and you believe you should do everything you could possibly do to [avoid] going back.” For people who follow the national security priesthood, the dire scenarios are all the more alarming for who is delivering them. Through his long years in government Perry invariably impressed colleagues as the calmest person in the room, relentlessly rational, such that people who did not know him well—his love of music and literature and travel—regarded his as a purely analytical mind, emotion subordinated to logic and duty. Starting in the 1950s as a technology executive and entrepreneur in some of the most secretive precincts of the defense industry, he gradually took on a series of high-level government assignments that gave him one of the most quietly influential careers of the Cold War and its aftermath. Fifteen years before serving as Bill Clinton’s secretary of defense, Perry was the Pentagon official in charge of weapons research during the Carter administration. It was from this perch that he may have had his most far-reaching impact, and left him in some circles as a legendary figure. He used his office to give an essential push to two ideas that transformed warfare over the next generation decisively to American advantage. One idea was stealth technology, which allowed U.S. warplanes to fly over enemy territory undetected. The other was precision-guided munitions, which allowed U.S. bombs to land with near-perfect accuracy. During the Clinton years, Perry so prized his privacy that he initially turned down the job of Defense secretary—changing his mind only after Clinton and Al Gore pleaded with him that the news media scrutiny wouldn’t be so bad. The reputation he built over a life in the public sphere is starkly at odds with this latest highly impassioned chapter of Perry’s career. Harold Brown, who also is 89, first recruited Perry into government, and was Perry’s boss while serving as Defense secretary in the Carter years. “No one would have thought of Bill Perry as a crusader,” he says. “But he is on a crusade.” Lee Perry, his wife of nearly 70 years, is living in an elder care facility, her once buoyant presence now lost to dementia. Perry himself, lucid as ever, has seen his physical frame become frail and stooped. Rather than slowing his schedule, he has accelerated his travels to plead with people to awaken to the danger. A trip to Washington includes a dinner with national security reporters and testimony on Capitol Hill. Back home in California, he’s at the Google campus to prod engineers to contemplate that their world may not last long enough for their dreams of technology riches to come true. He’s created an advocacy group, [the William J. Perry project](http://www.wjperryproject.org/), devoted to public education about nuclear weapons. He’s enlisted both his granddaughter and his 64-year-old daughter, Robin Perry, in the cause. But if his profile is rising, his style is essentially unchanged. He is a man known for self-effacement, trying to shape an era known for relentless self-promotion, a voice of quiet precision in a time of devil-take-the-hindmost bombast. The rational approach to problem-solving that propelled his career and won him adherents and friends in both political parties and even among some of America’s erstwhile enemies remains his guide—in this case, by endeavoring to calculate the possibilities and probabilities of a terrorist attack, regional nuclear war, or horrible miscalculation with Russia. “I want to be very clear,” he said. “I do not think it is a probability this year or next year or anytime in the foreseeable future. But the consequence is so great, we have to take it seriously. And there are things to greatly lower those possibilities that we’re simply not doing.” \*\*\* Perry really did not expect he would have to write this chapter of his public life. His official career closed with what seemed then an unambiguous sense of mission accomplished. By the time he arrived in the Pentagon’s top job in 1994, the Cold War was over, and the main item on the nuclear agenda seemed to be cleaning up no-longer-needed arsenals. As defense secretary, Perry stood with his Russian counterpart, Pavel Grachev, as they jointly blew up missile silos in the former Soviet Union and tilled sunflower seeds in the dirt. “I finally thought by the end of the ‘80s we lived through this horrible experience and it’s behind us,” Perry said. “When I was secretary, I fully believed it was behind us.” After leaving the Pentagon, he accepted an assignment from Clinton to negotiate an end to North Korea’s nuclear development program—and seemed agonizingly close to a breakthrough as the last days of the president’s term expired. Now, he sees his grandchildren inheriting a planet possibly more dangerous than it was during his public career. No one could doubt that the Sept. 11 terrorists would have gladly used nuclear bombs instead of airplanes if they had had them, and it seems only a matter of time until they try. Instead of a retreating threat in North Korea, that fanatical regime now possesses as many as eight nuclear bombs, and is just one member of a growing nuclear club. Far from a new partnership with Russia, Vladimir Putin has given old antagonisms a malevolent new face. American policymakers talk of spending up to $1 trillion to modernize the nuclear arsenal. And now comes Donald Trump with a long trail of statements effectively shrugging his shoulders about a world newly bristling with bombs and people with reasons to use them. Perry knew Hillary Clinton well professionally, and says he admired both her and Bill Clinton for their professional judgment though he was never a personal intimate of either. He was prescient before the election in expressing skepticism about how voters would respond to the dynastic premise of the Clinton campaign—a healthy democracy should grow new voices—but was as surprised as everyone else on Election Day. Donald Trump was not the voice he was looking for, to put it mildly, but he has responded to the Trump cyclone with modulated restraint. Perry said he assumes his most truculent rhetoric isn’t serious, the utterances of a man who assumed his words were for political effect only and had no real consequences. Now that they do, Perry is hoping to serve as a kind of ambassador to rationality. He said he is hoping for audiences soon, with Trump if the incoming president will see him, and certainly Trump’s national security team, which includes several people Perry knows, including Defense Secretary nominee James Mattis. There is little doubt the message if the meeting comes. “We are starting a new Cold War,” he says. “We seem to be sleepwalking into this new nuclear arms race. … We and the Russians and others don’t understand what we are doing.” “I am not suggesting that this Cold War and this arms race is identical to the old one,” Perry added. “But in many ways, it is just as bad, just as dangerous. And totally unnecessary.” \*\*\* Perry had been brooding over the question for a year. It was in the early 1950s, he was still in his 20s, and the subject was partial differential equations—the topic of his Ph.D. thesis. A particular problem had been absorbing him, day in and day out, hours and hours on end. Then, out of nowhere, a light came on. Math for Perry represented analytical discipline, a way of achieving mastery not only over numerical problems but any hard problem, by breaking it down into essential parts, distilling complexity into simplicity. | Photo via the William J. Perry Project “I woke up in the middle of the night, and it was all there,” Perry recalled. “It was all there, and I got out of bed and sat down. The next two or three hours, I wrote my thesis, and from the first word I wrote down, I never doubted what the last word was going to be: It was a magic moment.” The story is a reminder of something definitional about Bill Perry. Before he became in recent years an apostle of disarmament, before he sat atop the nation’s war-making apparatus in the 1990s, before he was the executive of a defense contractor specializing in the most complex arenas of Cold War surveillance in the 1960s, he was a young man in love with mathematics. In those days, Perry had planned on a career as a math professor. His attraction to math was not merely practical, in the way that engineers or architects rely on math. The appeal was just as much aesthetic, in ways that people who are not numbers people—political life tends to be dominated by word people—cannot easily comprehend. To Perry’s mind, there was a purity to math, a beauty to the patterns and relationships, that was not unlike music. Math for Perry represented analytical discipline, a way of achieving mastery not only over numerical problems but any hard problem, by breaking it down into essential parts, distilling complexity into simplicity. This trait was why Pentagon reporters in the 1990s liked spending time around Perry. When most public officials are asked a question, one studies the transcript later to decipher a succession of starts and stalls, sentence fragments and ellipses, that cumulatively convey an impressionistic sense of mind but no clear fixed meaning. Perry’s sentences, by contrast, always cut with surgical precision. It was one reason Clinton White House officials often held their breath when he gave interviews—Perry might make news by being clear on subjects, such as ethnic warfare in the Balkans or a nuclear showdown in North Korea, that the West Wing preferred to try to fog over.

“I’ve never been able to attack a policy problem with a mathematical formula,” he recalled, “but I have always believed that the rigorous way of thinking about a problem was good. It separated the fact from the bullshit, and that’s very important sometimes, to separate what you can from what you would hope you can do.”

Just how high is the risk? The answer is ultimately unknowable. Perry’s point, though, is that it’s a hell of a lot higher than you think. | M. Scott Mahaskey/POLITICO

Perry wishes more people were familiar with the concept of “expected value.” That is a statistical way of understanding events of very large magnitude that have a low probability. The large magnitude event could be something good, like winning a lottery ticket. Or it could be something bad, like a nuclear bomb exploding. Because the odds of winning the lottery are so low, the rational thing is to save your money and not buy the ticket. As for a nuclear explosion, by Perry’s lights, the consequences are so grave that the rational thing would be for people in the United States and everywhere to be in a state of peak alarm about their vulnerability, and for political debate to be dominated by discussion of how to reduce the risk.

And just how high is the risk? The answer of course is ultimately unknowable. Perry’s point, though, is that it’s a hell of a lot higher than you think.

Perry invites his listeners to consider all the various scenarios that might lead to a nuclear event. “Mathematically speaking, you add those all together in one year it is still just a possibility, not a probability,” he reckons. “But then you go out ten, twenty years and each time this possibility repeats itself, and then it starts to become a probability. How much time we have to get those possibility numbers lower, I don’t know. But sooner or later the odds are going to get us, I am afraid.”

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Almost uniquely among living Americans, Bill Perry has actually faced down the prospect of nuclear war before—twice. In the fall of 1962, Bill Perry was 35, father of five young children, living in the Bay Area and serving as director of Sylvania’s Electronic Defense Laboratories—driving his station wagon to recitals in between studying missile trajectories and the radius of nuclear detonations. Where he resided was not then called Silicon Valley, but the exuberance and spirit of creative possibility we now associate with the region was already evident. The giants then were Bill Hewlett and David Packard, men Perry deeply admired and wished to emulate in his own business career. The innovation engine at that time, however, was not consumer technology; it was the government’s appetite for advantage in a mortal struggle against a powerful Soviet foe. Perry was known as a star in the highly complex field of weapons surveillance and interpretation. So it was not a surprise, one bright October day, for Perry to get a call from Albert “Bud” Wheelon, a friend at the Central Intelligence Agency. Wheelon said he wanted Perry in Washington for a consultation. Perry said he’d juggle his schedule and be there the next week. “No,” Wheelon responded. “I need to see you right away.” Perry caught the red-eye from San Francisco, and went straight to the CIA, where he was handed photographs whose meaning was instantly clear to him. They were of Soviet missiles stationed in Cuba. For the next couple weeks, Perry would stay up past midnight each evening poring over the latest reconnaissance photos and help write the analysis that senior officials would present the next morning to President Kennedy. Perry experienced the crisis partly as ordinary citizen, hearing Kennedy on television draw an unambiguous line against Soviet missiles in this hemisphere and promising that any attack would be met with “a full retaliatory response.” But he possessed context, about the capabilities of weapons and the daily state of play in the crisis, that gave him a vantage point superior to that of all but perhaps a few dozen people. “I was part of a small team—six or eight people,” he recounted of those days 54 years earlier. “Half of them technical experts, half of them intelligence analysts, or photo interpreters. It was a minor role but I was seeing all the information coming in. I thought every day when I went back to the hotel it was the last day of my life because I knew exactly what nuclear weapons could do. I knew it was not just a lot of people getting killed. It was the end of civilization and I thought it was about to happen.” Left: A January 1963 aerial photo showing that the Soviets had disbanded medium- and intermediate-range ballistic missile sites in Cuba. Right: Soviet freighter Polzunov (top) loaded with nuclear missiles removed from Cuba, is escorted by American destroyer Vesole outside Cuban waters on trek back to Russia near end of Cuban Missile Crisis. | Defense Department; Carl Mydans/The LIFE Picture Collection/Getty Images It was years later that Perry, like other more senior participants in the crisis, learned how right that appraisal was. Nuclear bombs weren’t only heading toward Cuba on Soviet ships, as Kennedy believed and announced to Americans at the time. Some of them were already there, and local commanders had been given authority to use them if Americans launched a preemptive raid on Cuba, as Kennedy was being urged, goaded even, by Air Force Gen. Curtis LeMay and other military commanders. At the same time, Soviet submarines were armed and one commander had been on the verge of launching them until other officers on the vessel talked him out of it. Either event would have in turn sent U.S. missiles flying. The Cuban Missile Crisis recounting is one of the dramatic peaks in “My Journey on the Nuclear Brink,” the memoir Perry published last fall. It is a book laced with other close calls—like November 9, 1979, when Perry was awakened in the middle of the night by a watch officer at the North American Aerospace and Defense Command (NORAD) reporting that his computers showed 200 Soviet missiles in flight toward the United States. For a frozen moment, Perry thought: This is it—This is how it ends. The watch officer soon set him at ease. It was a computer error, and he was calling to see whether Perry, the technology expert, had any explanation. It took a couple days to discover the low-tech answer: Someone had carelessly left a crisis-simulation training tape in the computer. All was well. But what if this blunder had happened in the middle of a real crisis, with leaders in Washington and Moscow already on high alert? The inescapable conclusion was the same as it was in 1962: The world skirting nuclear Armageddon as much by good luck as by skilled crisis management. Perry is part of a distinct cohort in American history, one that didn’t come home with the large-living ethos of the World War II generation, but took responsibility for cleaning up the world that the war bequeathed. He was a 14-year-old in Butler, Pennsylvania when he heard the news of the Pearl Harbor attack in a friend’s living room, and had the disappointed realization that the war might be over by the time he was old enough to fight in it. That turned out to be true—he was just shy of 18 at war’s end—a fact that places Perry in what demographers have called the “Silent Generation,” too young for one war but already middle-aged by the time college campuses erupted over Vietnam. Like many in his generation, Perry was not so much silent as deeply dutiful, with an understated style that served as a genial, dry-witted exterior to a life in which success was defined by how faithfully one met his responsibilities. Perry said he became aware, first gradually and over time profoundly, of the surreal contradictions of his professional life. His work—first at Sylvania and then at ESL, a highly successful defense contracting firm he co-founded in 1963—was relentlessly logical, analyzing Soviet threats and intentions and coming up with rational responses to deter them. But each rational move was part of a supremely irrational dynamic—“mutually assured destruction”—that placed the threat of massive casualties at the heart of America’s basic strategic thinking. It was the kind of framework in which policymakers could accept that a mere 25 million people dead was good news. Also the kind that in one year alone led the United States to produce 8,000 nuclear bombs. By the end, the Cold War left the planet with about 70,000 bombs ([a total that](https://www.armscontrol.org/factsheets/Nuclearweaponswhohaswhat) is now down to about 15,500). “I think probably everybody who was involved in nuclear weapons in those days would see the two sides of it,” Perry recalls, “the logic of deterrence and the madness of deterrence, and there was no mistake, I think, that the acronym was MAD.” \*\*\* Perry has been at the forefront of a movement that he considers the sane and only alternative, and he has joined forces with other leading Cold Warriors who in another era would likely have derided their vision as naïve. In January 2007, he was a co-author of a remarkable commentary that ran on the op-ed page of the Wall Street Journal. It was signed also by two former secretaries of state, George Schulz and Henry Kissinger and by Sam Nunn, a former chairman of the Senate Armed Services Committee—all leading military hawks and foreign policy realists who came together to argue for something radical: that the goal of U.S. policy should be not merely the reduction and control of atomic arms, it should be the ultimate elimination of all nuclear weapons. This sounded like gauzy utopianism, especially bizarre coming from supremely pragmatic men. But Perry and the others always made clear they were describing a long-term ideal, one that would only be achieved through a series of more incremental steps. The vision was stirring enough that it was endorsed by President Obama in his opening weeks in office, in a March 2009 address in Prague. In retrospect, Obama’s speech may have been the high point for the vision of abolition. “A huge amount of progress was made,” recalled Shultz, now 93. “Now it is going in the other direction.” “We have less danger of an all-out war with Russia,” in Nunn’s view. “But we have more danger of some type of accident, miscalculation, cyber interference, a terrorist group getting a nuclear weapon. It requires a lot more attention than world leaders are giving it.” Perry’s goal now is much more defensive than it was just a few years ago—halting what has become inexorable momentum toward reviving Cold War assumptions about the central role of nukes in national security. More recently he’s added yet another recruit to his cause: California Governor Jerry Brown. Brown, now 78, met Perry a year ago, after deciding that he wanted to devote his remaining time in public service mainly to what he sees as civilization’s two existential issues, climate change and nuclear weapons. Brown said he became fixated on spreading Perry’s message after reading his memoir: He recently gave a copy to President Obama and is trying to bend the ear of others with influence in Washington. If Bill Perry has a gift for understatement, Brown has a gift for the theatrical. In an interview at the governor’s mansion in Sacramento, he wonders why everyone is not paying attention to his new friend and his warnings for mankind. “He is at the brink! At the brink! Not WAS at the brink—IS at the brink,” Brown exclaimed. “But no one else is.” A California governor can have more influence, at least indirectly, than one might think, due to the state’s outsized role in policy debates and the fact that the University of California’s Board of Regents helps manage some of the nation’s top weapons laboratories, which study and design nuclear weapons. Brown, who was a vocal critic in the 1980s of what he called America's "nuclear addiction," reviewed Perry's recent memoir in the New York Review of Books, and said he is determined to help his new friend spread his message. “Everybody is, 'we are not at the brink,' and we have this guy Perry who says we are. It is the thesis that is being ignored." Even if more influential people wake up to Perry’s message—a nuclear event is more likely and will be more terrible than you realize—a hard questions remains: Now what? This is where Perry’s pragmatism comes back into play. The smartest move, he thinks, is to eliminate the riskiest part of the system. If we can’t eliminate all nukes, Perry argues, we could at least eliminate one leg of the so-called nuclear triad, intercontinental ballistic missiles. These are especially prone to an accidental nuclear war, if they are launched by accident or due to miscalculation by a leader operating with only minutes to spare. Nuclear weapons carried by submarines beneath the sea or aboard bomber planes, he argues, are logically more than enough to deter Russia.

The problem, he knows, is that logic is not necessarily the prevailing force in political debates. Psychology is, and this seems to be dictating not merely that we deter a Russian military force that is modernizing its weapons but that we have a force that is self-evidently superior to them.

It is an argument that strikes Perry as drearily familiar to the old days. Which leads him the conclusion that the only long-term way out is to persuade a younger generation to make a different choice.

His granddaughter, Lisa Perry, is precisely in the cohort he needs to reach. At first she had some uncomfortable news for her grandfather: Not many in her generation thought much about the issue.

“The more I learned from him about nuclear weapons the more concerned I was that my generation had this massive and dangerous blind spot in our understanding of the world,” she said in an interview. “Nuclear weapons are the biggest public health issue I can think of.”

But she has not lost hope that their efforts can make a difference, and today she has put her graduate studies in public health on hold to work full time for the Perry Project as its social media and web manager. “It can be easy to get discouraged about being able to do anything to change our course,” she said. “But the good news is that nuclear weapons are actually something that we as humans can control...but first we need to start the conversation.”

It was with her help that Perry went on Reddit to [field questions](https://www.reddit.com/r/IAmA/comments/4a0ga4/iam_william_j_perry_former_secretary_of_defense/) ranging from how his PhD in mathematics prepared him to what young people need to understand.

“As a 90s baby I never lived in the Cold War era,” wrote one participant, with the Reddit username BobinForApples. “What is one thing today's generations will never understand about life during the Cold War?”

Perry answered, as SecDef19: “Because you were born in the 1990s, you did not experience the daily terror of ‘duck and cover’ drills as my children did. Therefore the appropriate fear of nuclear weapons is not part of your heritage, but the danger is just as real now as it was then. It will be up to your generation to develop the policies to deal with the deadly nuclear legacy that is still very much with us.”

For the former defense secretary, the task now is to finally—belatedly—prove Einstein wrong. The physicist said in 1946: “The unleashed power of the atom has changed everything save our modes of thinking and we thus drift toward unparalleled catastrophe.”

In Perry’s view the only way to avoid it is by directly contemplating catastrophe—and doing so face to face with the world’s largest nuclear power, Russia, as he recently did in a forum in Luxembourg with several like-minded Russians he says are brave enough to speak out about nuclear dangers in the era of Putin.

### 2ac --- democracy

#### Global democracy is key to indigenous rights.

Naim 3, Distinguished fellow at the Carnegie Endowment for International Peace, a best-selling author, and an internationally syndicated columnist. Naím was the editor-in-chief of Foreign Policy magazine for fourteen years (Moises, October 9th, “Indigenous Groups and Their Global Allies,” *The Carnegie Endowment for International Peace*, <https://carnegieendowment.org/2003/10/09/indigenous-groups-and-their-global-allies-pub-1364>, Accessed 10-15-2021)

At a recent gathering of Latin American heads of state, Luiz Inácio Lula da Silva, the Brazilian president, commented that his supporters, the workers of Brazil, had waited for decades to influence Brazilian politics. "That's nothing," said Alejandro Toledo, the first Peruvian president of indigenous descent. "My people have been waiting for 500 years!" The wait is now over, and not just in Peru. The political empowerment of indigenous populations has become a global trend.

The Confederation of Indigenous Nationalities of Ecuador is now a strong political force in its home country. So is Bolivia's Movement toward Socialism, which supports the Bolivian ethnic groups that depend on coca leaf production. Last August, the Canadian government gave the Tlicho Indians a diamond-rich area in the Northwest Territories, equivalent in size to Switzerland, and another 29,000 square miles to the Labrador Inuits. Indigenous groups have also gained political influence in Brazil, Colombia and throughout Central America.

In Mexico, the rebellion in Chiapas brought indigenous groups to the forefront of national politics. Australia's Aborigines and New Zealand's Maoris are regaining more control of their ancestral lands.

This newly acquired political clout does not mean that the abject poverty, exclusion and exploitation common to the world's indigenous populations are over. But their political influence has increased in the past three decades. Why?

The short answer is globalisation. Environmentalists, human rights activists, anti-poverty campaigners and other civil groups are now able to recruit and raise funds faster and further afield than ever before. Meanwhile, the global spread of democracy has helped highlight the plight of indigenous populations and increased their political might. Decentralisation and devolution of political power to state and local governments have enabled indigenous representatives to win elections. Global and local activism has eroded tolerance for human rights violations, ecological abuses and discrimination of any kind, and set new standards for the behaviour of governments and corporations. During the 1980s, for example, the United Nations launched an initiative to establish a universal declaration of indigenous rights. A working group representing governments and indigenous organisations has met annually in Geneva and, although the declaration remains bogged down, the process has helped create an active and relatively well funded global network of indigenous groups and other interested organisations.

#### This is true in the United States — democratic representation is increasing and spurring vital reforms.

Economist 18, The Economist (Print Edition, in the United States section under the headline of “Off the reservation”), 11-29-2018, “The rise of Native American politicians,” The Economist)

Deb Haaland, who last month became one of the first native-American women elected to Congress, experienced what this meant to other Indian women on her first post-poll trip to Capitol Hill. She was recognised there by a party of native visitors from South Dakota, who rushed to embrace her in tears. “I was crying, they were crying,” she says. “Representation matters. And if you disagree, try not being represented for over 200 years and then see how it feels to have someone who looks like you in Congress!” One of the most dismal stories in the run-up to the mid-terms was an attempt by Republicans in North Dakota to suppress the vote of left-leaning Indians. Yet one of the most cheering to emerge from the election was the success of native candidates. Ms Haaland, a veteran activist from New Mexico and member of the Laguna Pueblo tribe, will enter the House of Representatives alongside Sharice Davids, a lawyer, martial-arts specialist and member of the Ho-Chunk tribe from Kansas. According to a count by Mark Trahant of the website Indian Country Today, 103 native candidates ran for office in the mid-terms. At least 60 won, mostly for the Democrats—though Oklahomans elected a Republican Cherokee, Kevin Stitt, to be America’s first Indian governor. This represents an acceleration of a welcome trend. Indians are doggedly beset by poverty, ill health and other social problems. Yet the picture of wretchedness on the reservation this conjures is misleading. Over 70% live in cities, where an educated Indian middle class has emerged. Some of that progress is driven by Indian casino revenues—which also helped fund Ms Haaland’s campaign. But it mainly reflects a positive transformation in the way Americans view native history and culture. Several factors—including the legal protections and economic benefits Indians secured in the 1960s, the environmental movement, and a cultural rethink by Hollywood—have encouraged anyone with Indian blood to identify as native. This phenomenon, known as Cherokee Grandmother Syndrome, explains rapid growth in the Indian population. It leapt by over a quarter between 2000 and 2010. Ms Haaland is half-white; Mr Stitt does not look Indian at all. Native Americans still represent less than 2% of the population. So none of the candidates for national or statewide office made much of their Indianness on the trail. It helped Ms Haaland win a tough primary, but mainly because white liberals in Albuquerque wanted to send a native woman to Congress. The fact that New Mexico was the last state to give Indians the vote, in 1962, made that especially appealing. Ms Haaland’s ethnicity also helped her shrug off two convictions for drunk driving. She said she had “been sober for 30 years”. A reference to the blight of addiction among Indians, and to her fortitude, that ended the matter. Indian candidates for lower office were more obviously motivated by Native issues. They included veterans of the Standing Rock protest against a gas pipeline in North Dakota, in 2016 and 2017, which drew the biggest Indian crowd in decades. Many also focused their criticism of President Donald Trump on his efforts to shrink protection for tribal lands. A decision by the interior department in September to deny a reservation to the landless Mashpee Wampanoag tribe of Massachusetts provided a timely illustration. Such common concerns, uniting America’s 573 recognised tribes, have proliferated as Indian economic interests and cultural identity have deepened. The response of native politicians in Alaska to Brett Kavanaugh’s contentious Supreme Court confirmation was another example of this. They denounced him for his description of Hawaii’s affirmative action for natives as a “naked racial spoils system”. That in turn helped persuade Senator Lisa Murkowski of Alaska to oppose his elevation. A groundbreaking survey of Indian voters, formerly a lacuna in political research, by the think-tank Latino Decisions also points to more unity and engagement. Native turnout was high, including in places such as North Dakota where Indians faced attempts to discourage them from voting. It may have proved decisive in several races won by Democrats by thin margins, including Senate races in Arizona and Montana. And it was highest among voters aged 18-29, who were most energised by Standing Rock. Over a quarter of young native voters had volunteered for a mid-term campaign or voter-registration drive. Yet the survey also pointed to the traditional diversity of Indian views, which makes native Americans unlike other minority groups. They leant Democratic by a slimmer margin than blacks or Hispanics. Almost half of Indian men voted Republican. There were also signs of a long-standing ambivalence towards national politics. Though contemptuous of Mr Trump, most expressed little enthusiasm for either party.

### 2AC ⁠— Representations [Extinction]

#### Preventing extinction counters the core of the modern colonial mission

Singh 18, Associate Professor of English and Women, Gender, and Sexuality Studies, University of Richmond (Julietta Singh, July 2018, “Errands for the Wild,” The South Atlantic Quarterly 117:3)

What has this day been for, if its future is only now? What kinds of pedagogies might we enact under the threat and fact of erasure? How can we teach a pedagogy of extinction that remains firmly political, hopeful, committed to ever-widening communal formations? By “pedagogy of extinction” I mean to signal a tentacular pedagogy — to borrow from Donna Haraway (2016) — that will not separate the teaching-learning of histories of extinction produced through the systemic force of colonization and its ecological legacies from all those who are becoming extinct in the wake of the Anthropocene and the irreversibility of our collective end. At the end of The TimeEaters, the pedagogical errand is confronted by the extinction of its target. In response to this jam, the pedagogue determines to teach his alien friend the art of protest (in the form of letter writing, which feels touchingly retro as it aims toward the future). The errand here is an insistence, an unrelenting pedagogy of hopeful protest in the now, regardless of what gets scheduled for us tomorrow. Humanimal Projects If the future in The Time-Eaters is precarious for the alien friend, what is the future of the human child who is also (always) animal? For Kathryn Bond Stockton (2009: 5), the figure of the child is “precisely who we are not and, in fact, never were. It is the act of adults looking back. It is a ghostly, unreachable fancy, making us wonder.” In the poetic prose collection Humanimal: A Project for Future Children, Bhanu Kapil (2009) undertakes her “project” for and through the queer historical animal-child, one for whom the future ultimately comes through other bodies. As she undertakes this project, Kapil is accompanied by a French filmmaking crew to West Bengal to research the alleged true story of two “wolf girls,” Amala and Kamala, found living in the wild in 1921 by the Reverend Joseph Singh. Humanimal upturns history for a future that has already passed; Kapil’s errand into this wild past unfolds the missionary logic of a wildness that must be forcibly converted. As the bodies of the wolf girls emerge through this text, they are tangled up with other bodies — those of the missionary and Kapil herself — who are likewise becoming animal through their accounts of their fantastical engagements with the wild girls. Humanimal opens with an explicative passage about the Reverend Singh, the missionary who claimed to have discovered and captured the wolf girls and later wrote about his work to civilize them: In the jungle, on a Mission to convert the tribal population, Singh had heard stories of “two white ghosts” roaming with a mother wolf and her pack of cubs. He decided to track them. Upon discovering the “terrible creatures” to be human, he killed the wolves and brought the children back to his churchrun orphanage, the Home, in Midnapure. For the next decade, he documented his attempt to teach the girls language, upright movement, and a moral life. Despite his e¦orts, Amala died within a year of capture, of nephritis. Kamala lived to be about sixteen, when she died of TB. (Kapil 2009: x) I’m fascinated here by Kapil’s elucidation of a relay of errands — a mission within Singh’s mission, that is, the movement from an errand to convert tribal communities into another adjacent errand that dispels the logic of the ghost to capture and civilize the wild girls. This second pursuit is a “sidetrack,” an errand that strays from but remains staunchly within the logic of the first. They are crucially linked by conversion, by a logic of capture that is at the heart of the colonial mission. Taking up the missionary’s voice, Kapil writes that Singh killed the wolf pack before capturing one of the girls in a bedsheet: “I cut a hole,” Singh states, “and removed her from the cave” (14). So begins Singh’s pedagogy of conversion, a pedagogy that is also a civilizing cut. And his engagement with this civilizing errand, this pedagogy of cut, is one that continuously mimics the very thing it seeks so willfully to convert: “Accused by an orphan of biting, Kamala is called into Joseph’s study where he bites her back. Beats her with a bamboo wand, then pricks her in the palm with its tip” (41). Kapil emphasizes the savagery of civility in capture and its attempt to tame, questioning the line that separates civility from the wild it so relentlessly desires to control. Singh’s own errand-pursuing body becomes itself errant. Even before he captures and cuts the girls into civilization, his own body is already animal, a being whose “hide shivers” as he encroaches on the gendered bodies of the wolf girls to civilize them (22). My interest is in how one colonial errand gives rise to the advent of another and in how this relay might be perverted and redirected toward the decolonial wild. Kapil’s poetic decolonial errand is trans-temporally tentacular: into Bengal, into history, into the wilderness where the wolf girls may once have lived, she begins to uproot the grand colonial errand. In Humanimal, the future child for whom she writes is the wolf child of the past, a girl whose “new, animal mother” will come (has already come, will come again) to cross over with her “into the green” (18). And Kapil herself is as much this wolf girl as she is the one of the past and the one of the future. She embodies her errand: “To write this, the memoir of your body, I slip my arms into the sleeves of your shirt. I slip my arms into yours, to become four-limbed” (15). Constructing memory becomes a requisite labor of intimacy, a mission against the Mission, a strategy for messing with time — reversing and bringing forward the acts of becoming animal, becoming human, becoming civilized, becoming hybrid with, as, and for the other. Kapil writes herself into the body of the historic wolf child and, in so doing, takes on the violence of an intimate history that has sought forcibly to convert the wild. This is yet another kind of pedagogy operating in the text that stands fiercely against the pedagogy of the colonial cut. Kapil’s is a self-rendering pedagogy, a willingness to becoming other-animal, a recognition of the mythical but no less embodied trace of the animal girl who is in you. Who is you. Whose own tortured body has also been and is still becoming yours. Through her journey to Bengal and the writing of her collection, Kapil undertakes missions against the Mission. Errands against colonial force. Errands of wild embrace. Wild errands. From within the colonial errand that we are all living out, Dodge and Kapil point us — from very different locations and through divergent forms — toward how we might dispatch resistant errand-acts that create static in the delivery of the almighty colonial message. If we can conceive of the colonial errand as a kind of permeating noise, we might also follow Michel Serres (2007: 69) in beginning to attune ourselves to other forms of resistant noise that are also always sounding: “There are always multiple systems at play, making noise, even while we live in a world in which it appears that there is only one system, one dominant form of noise we have been socialized into hearing.” Dodge and Kapil take up errands that make noise within and against the false sense of a dominant and dominating sound track. Theirs are errands that bloom through bodyminds in ways that disrupt the cut and capture of the grand colonial message. Errands that set out not to deliver already prescribed messages from on high, but to dispatch and receive messages from the past and the future, from this world and others, through errands that do not lay claim to globalizing authority and civilizing modes of forced obedience.

Wild Extinction

I am summoning an embodied embrace of strange errand making, of transmissions that have no precise destination and no claims to authority, that take up force but refuse its controlled propagation. Against mastery, I am calling for a wild proliferation of texts and/as bodies that are radically hybrid, whose lives — our lives, whoever and whatever we are — might be lived in collective friction against the errands upon which we are founded. I am wandering toward this wild, with ghosts haunting alongside me, gathering messages from friends and strangers and running with them as we move with disorientation not into some wilderness out there, but into and for our own bewildering surround. I am led back to pedagogies of extinction, toward Halberstam’s sanctuary in the wild and the intimate commitment to staying lost. The wild errand sutures these possibilities, aiming for a lost sanctuary — gathering and distributing messages as we head toward a place we cannot (yet? ever?) reach. Perhaps it seems ridiculous to point out that some of us have never been extinct before. The trajectory of the colonial errand has delivered us to this breaking point, to a practice of consumption so enormous that it now devours itself. Our wild errands will spring from the disorientations we feel and sanctuaries we build in the shadows of this colonial force and will not be acts of shelter from the fact of extinction but will be shelters that foster a politics of living into and through our messages of refusal. Into the kind of world we won’t stop dreaming up and stitching together. The errand is act, is place, is temporality, is politics, is an unmapped trail that is being invented and navigated as it is being anarchically sounded and overgrown. The colonial errand, so crucial to the logic of modernity, has run us into our own impending extinction. The misfit craft of the wild errand pops up to confront this end without surrender. It does so without giving up on the work of justice, on forms of redress for those capitalist errands that keep being made and delivered against life. The wild errand is an act of teaching ourselves how to live under and against erasure. What I am calling wild extinction is, counterintuitively, a profoundly hopeful politics even while it pronounces its grounded sense that ours is a perishing life-form. While the colonial errand into the wilderness has driven some to extinction, and is still delivering others closer to it, wild errands bloom through the cracks and fissures of a seemingly impermeable concrete colonialism. The wild errand is a politics that mushrooms against those historically rooted forms of insidious erranding from above. In Anna Lowenhaupt Tsing’s (2015: 2) beautiful account of mushrooms that grow in and because of capitalist ruin, she tells us that “the uncontrolled lives of mushrooms are a gift — and a guide — when the controlled world we thought we had fails.” She reminds us that the mushroom’s willingness to emerge in and through devastation “allows us to explore the ruin that has become our collective home” (3). The wild errand is a style of living together into this blasted landscape — into the settler colony we keep calling home.

### 2ac --- turn

#### Capitalism is good and sustainable---technological progress has successfully dematerialized economic growth.

McAfee 19, \*Andrew Paul McAfee, a principal research scientist at MIT, is cofounder and codirector of the MIT Initiative on the Digital Economy at the MIT Sloan School of Management; (2019, “More from Less: The Surprising Story of How We Learned to Prosper Using Fewer Resources and What Happens Next”, https://b-ok.cc/book/5327561/8acdbe)

Capitalism and technological progress are the first pair of forces driving dematerialization. This statement will come as a surprise to many, and for good reason. After all, it’s exactly this combination that caused us to massively increase our resource consumption throughout the Industrial Era. As we saw in chapter 3, the ideas of William Jevons and Alfred Marshall point to the distressing conclusion that capitalism and tech progress always lead to more from more: more economic growth, but also more resource consumption.

So what changed? How are capitalism and tech progress now get ting us more from less ? To get answers to these important questions, let’s start by looking at a few recent examples of dematerialization.

Fertile Farms

America has long been an agricultural juggernaut. In 1982, after more than a decade of steady expansion due in part to rising grain prices, total cropland in the country stood at approximately 380 million acres. Over the next ten years, however, almost all of this increase was reversed. So much acreage was abandoned by farmers and given back to nature that cropland in 1992 was almost back to where it had been almost twenty-five years before. This decline had several causes, including falling grain prices, a severe recession, over-indebted farmers, and increased international competition.

A final factor, though, was the ability to get ever-more corn, wheat, soybeans, and other crops from the same acre of land, pound of fertilizer and pesticide, and gallon of water. The material productivity of agriculture in the United States has improved dramatically in recent decades, as we saw in chapter 5. Between 1982 and 2015 over 45 million acres—an amount of cropland equal in size to the state of Washington—was returned to nature. Over the same time potassium, phosphate, and nitrogen (the three main fertilizers) all saw declines in absolute use. Meanwhile, the total tonnage of crops produced in the country increased by more than 35 percent.

As impressive as this is, it’s dwarfed by the productivity improvements of American dairy cows. In 1950 we got 117 billion pounds of milk from 22 million cows. In 2015 we got 209 billion pounds from just 9 million animals. The average milk cow’s productivity thus improved by over 330 percent during that time.

Thin Cans

Tin cans are actually made of steel coated with a thin layer of tin to improve corrosion resistance. They’ve been used since the nineteenth century to store food. Starting in the 1930s, they began also to be used to hold beer and soft drinks.

In 1959 Coors pioneered beer cans made of aluminum, which is much lighter and more corrosion resistant than steel. Royal Crown Cola followed suit for soda five years later. As Vaclav Smil relates, “A decade later steel cans were on the way out, and none of them have been used for beer since 1994 and for soft drinks since 1996.… At 85 g the first aluminum cans were surprisingly heavy; by 1972 the weight of a two-piece can dropped to just below 21 g, by 1988 it was less than 16 g, a decade later it averaged 13.6 g, and by 2011 it was reduced to 12.75 g.”

Manufacturers accomplished these reductions by making aluminum cans’ walls thinner, and by making the sides and bottom from a single sheet of metal so that only one comparatively heavy seam was needed (to join the top to the rest of the can). Smil points out that if all beverage cans used in 2010 weighed what they did in 1980, they would have required an extra 580,000 tons of aluminum. And aluminum cans kept getting lighter. In 2012 Ball packaging introduced into the European market a 330 ml can that held 7.5 percent less than the US standard, yet at 9.5 g weighed 25 percent less.

Gone Gizmos

In 2014 Steve Cichon, a “writer, historian, and retired radio newsman in Buffalo, NY,” paid $3 for a large stack of front sections of the Buffalo News newspaper from the early months of 1991. On the back page of the Saturday, February 16, issue was an ad from the electronics retailer Radio Shack. Cichon noticed something striking about the ad: “There are 15 electronic gimzo type items on this page.… 13 of the 15 you now always have in your pocket.”

The “gizmo type items” that had vanished into the iPhone Cichon kept in his pocket included a calculator, camcorder, clock radio, mobile telephone, and tape recorder. While the ad didn’t include a compass, camera, barometer, altimeter, accelerometer, or GPS device, these, too, have vanished into the iPhone and other smartphones, as have countless atlases and compact discs.

The success of the iPhone was almost totally unanticipated. A November 2007 cover story in Forbes magazine touted that the Finnish mobile phone maker Nokia had over a billion customers around the world and asked, “Can anyone catch the cell phone king?”

Yes. Apple sold more than a billion iPhones within a decade of its June 2007 launch and became the most valuable publicly traded company in history. Nokia, meanwhile, sold its mobile phone business to Microsoft in 2013 for $7.2 billion to get “more combined muscle to truly break through with consumers,” as the Finnish company’s CEO Stephen Elop said at the time of the deal.

It didn’t work. Microsoft sold what remained of Nokia’s mobile phone business and brand to a subsidiary of the Taiwanese electronics manufacturer Foxconn for $350 million in May of 2016. Radio Shack filed for bankruptcy in 2015, and again in 2017.

From Peak Oil to… Peak Oil

In 2007 US coal consumption reached a new high of 1,128 million short tons, over 90 percent of which was burned to generate electricity. Total coal use had increased by more than 35 percent since 1990, and the US Energy Information Administration (the official energy statisticians of the US government) forecast further growth of up to 65 percent by 2030.

Also in 2007 the US Government Accountability Office (GAO), a federal agency known as “the congressional watchdog,” published a report with an admirably explanatory title: “Crude Oil: Uncertainty about Future Oil Supply Makes It Important to Develop a Strategy for Addressing a Peak and Decline in Oil Production.” It took seriously the idea of “peak oil,” a phrase coined in 1956 by M. King Hubbert, a geologist working for Shell Oil. As originally conceived, peak oil referred to the maximum amount of oil that we could annually produce for all of humanity’s needs.

The first oil wells pumped out the crude oil that was closest to the earth’s surface or otherwise easiest to access. As those wells dried up, we had to drill deeper ones, both on land and at sea. As the world’s economies kept growing, so did total demand for oil, which kept getting harder and harder to obtain. Peak oil captured the idea that despite our best efforts and ample incentive, we would come to a time after which we would only be able to extract less and less oil year after year from the earth. Most of the estimates summarized in the GAO report found that peak oil would occur no later than 2040.

The report did not mention fracking, which in retrospect looks like a serious omission. Fracking is short for “hydraulic fracturing” and is a means of obtaining oil and natural gas from rock formations lying deep underground. It uses a high-pressure fluid to cause fractures in the rock, through which oil and gas can flow and be extracted.

The United States and other countries have long been known to have huge reserves of hydrocarbons in deep rock formations, which are often called shales. Companies had been experimenting with fracking to get at them since the middle of the twentieth century, but had made little progress. In 2000 fracking accounted for just 2 percent of US oil production.

That figure began to increase quickly right around the time of the GAO report. Not because of any single breakthrough, but instead because the suite of tools and techniques needed for profitable fracking had all improved enough. A gusher of shale oil and gas ensued.

Thanks to fracking, US crude oil production almost doubled between 2007 and 2017, when it approached the benchmark of 10 million barrels per day. By September of 2018 America had surpassed Saudi Arabia to become the world’s largest producer of oil. American natural gas production, which had been essentially flat since the mid-1970s, jumped by nearly 43 percent between 2007 and 2017.

As a result of the fracking boom the United States has experienced peak coal rather than peak oil. And the peak in coal is not in total annual supply, but instead in demand. Fracking made natural gas cheap enough that it became preferred over coal for much electricity generation. By 2017 total US coal consumption was down 36 percent from its 2007 high point.

The phrase peak oil is still around, but, as is the case with coal, it usually no longer refers to supply. As a 2017 Bloomberg headline put it, “Remember Peak Oil? Demand May Top Out Before Supply Does.” Even though the extra supply from fracking has helped push down oil and gas prices, many observers now believe that energy from other sources—the sun, wind, and the nuclei of uranium atoms—is getting cheaper faster and becoming much more widely available. So much so that, as a 2018 article in Fortune about the future of oil hypothesized, “This wouldn’t be just another oil-price cycle, a familiar roller coaster in which every down is followed by an up. It would be the start of a decades-long decline of the Oil Age itself—an uncharted world in which… oil prices might be ‘lower forever.’ ” Analysts at Shell, the company from which the phrase peak oil originated, now estimate that global peak oil demand might come as soon as 2028.

Taking Stock of Rolling Stock

My friend Bo Cutter started his career in 1968 working for Northwest Industries, a conglomerate that owned the Chicago and North Western Railway. One of his first assignments was to help a team tasked with solving a problem that sounds odd to modern ears: figuring out where CNW’s railcars were.

These cars are massive metal assemblies, each weighing thirty tons or more. In the late 1960s CNW owned thousands of them, representing a huge commitment of both material and money. Across the railroad industry, the rule of thumb then was that about 5 percent of a company’s railcars moved on any given day. This was not because the other 95 percent needed to rest. It was because their owners didn’t know where they were.

CNW owned thousands of miles of track in places as far from Chicago as North Dakota and Wyoming. Its rolling stock (as locomotives and railcars are called) could also travel outside the company’s network on tracks owned by other railroads. So these assets could be almost anywhere in the country.

When the railcars weren’t moving, they sat in freight yards. At the time Cutter started his job, freight yards didn’t keep up-to-date records of the idle rolling stock they contained because, in the days before widespread digital computers, sensors, and networks, there was no way to cost-effectively know or communicate the location of each car. So it was impossible for CNW or any other railroad to systematically track its most important inventory, even though doing so would be hugely beneficial to the company’s bottom line. For example, Cutter’s team knew that if they could increase the percentage of cars moving each day from 5 percent to 10 percent, they would need only half as many of them. Even a single percentage point increase in freight-car use would yield major financial benefits.

When Cutter started his assignment, CNW and all other railroads employed spotters, who visited yards and watched trains pass, then telegraphed their findings to the head office. Other railroads passed on similar information to collect the demurrage charges they were owed for each CNW car on their tracks and in their yards. Cutter’s team improved on these methods by making them more systematic and efficient. They put in place a better baseline audit of where railcars were, employed more spotters, painted CNW cars differently so they were easier to see, and explored how to make more use of a new tool for businesses: the digital computer.

That tool and its kin are now pervasive in the railroad industry. In the early 1990s, for example, companies started putting radio-frequency identification tags on each piece of rolling stock. These tags would be read by trackside sensors, thus automating the work of spotting. At present over 5 million messages about railcar status and location are generated and sent throughout the American railway system every day, and the country’s more than 450 railroads have nearly real-time visibility over all their rolling stock.

The Rare Earth Scare

In September of 2010 the Japanese government took into custody the captain of a Chinese fishing boat that had collided with Japanese patrol vessels near a group of uninhabited islands in the East China Sea claimed by both countries. China responded by imposing an embargo on shipments of rare earth elements (REE) to the Land of the Rising Sun.

Even though Japan relented almost immediately and released the captain, a global panic began. This is because rare earths are “vitamins of chemistry,” as USGS scientist Daniel Cordier puts it. “They help everything perform better, and they have their own unique characteristics, particularly in terms of magnetism, temperature resistance, and resistance to corrosion.”

By 2010 China produced well over 90 percent of the world’s REE. Its actions in the wake of the maritime incident convinced many that it could and would take unilateral action to control the flow of these important materials, and panicked buying soon followed (along with its close cousin rampant speculation). A bundle of REE that would have sold for less than $10,000 in early 2010 soared to more than $42,000 by April of 2011. In September of that year the US House of Representatives held a hearing called “China’s Monopoly on Rare Earths: Implications for US Foreign and Security Policy.”

China didn’t attain its near monopoly because it possessed anything close to 90 percent of global reserves of REE. In fact, rare earths aren’t rare at all (one, cerium, is about as common in the earth’s crust as copper). However, they’re difficult to extract from ore. Obtaining them requires a great deal of acid and generates tons of salt and crushed rock as by-products. Most other countries didn’t want to bear the environmental burden of this heavy processing and so left the market to China.

In the wake of the embargo, this seemed like a bad idea. As Representative Brad Sherman put it during the congressional hearing, “Chinese control over rare earth elements gives them one more argument as to why we should kowtow to China.” But there was never much kowtowing. By the time of the hearing, prices for REE were already in free fall.

Why? What happened to the apparently tight Chinese stranglehold over REE? Several factors caused it to ease, including the availability of other supply sources and incomplete maintenance of the embargo. But as public affairs professor Eugene Gholz noted in a 2014 report on the “crisis,” many users of REE simply innovated their way out of the problem. “Companies such as Hitachi Metals [and its subsidiary in North Carolina] that make rare earth magnets found ways to make equivalent magnets using smaller amounts of rare earths in the alloys.… Meanwhile, some users remembered that they did not need the high performance of specialized rare earth magnets; they were merely using them because, at least until the 2010 episode, they were relatively inexpensive and convenient.”

Overall, the companies using REE found many inexpensive and convenient alternatives. By the end of 2017 the same bundle of rare earths that had been trading above $42,000 in 2011 was available for about $1,000.

What’s Going On?

There is no shortage of examples of dematerialization. I chose the ones in this chapter because they illustrate a set of fundamental principles at the intersection of business, economics, innovation, and our impact on our planet. They are:

We do want more all the time, but not more resources. Alfred Marshall was right, but William Jevons was wrong. Our wants and desires keep growing, evidently without end, and therefore so do our economies. But our use of the earth’s resources does not. We do want more beverage options, but we don’t want to keep using more aluminum in drink cans. We want to communicate and compute and listen to music, but we don’t want an arsenal of gadgets; we’re happy with a single smartphone. As our population increases, we want more food, but we don’t have any desire to consume more fertilizer or use more land for crops.

Jevons was correct at the time he wrote that total British demand for coal was increasing even though steam engines were becoming much more efficient. He was right, in other words, that the price elasticity of demand for coal-supplied power was greater than one in the 1860s. But he was wrong to conclude that this would be permanent. Elasticities of demand can change over time for several reasons, the most fundamental of which is technological change. Coal provides a clear example of this. When fracking made natural gas much cheaper, total demand for coal in the United States went down even though its price decreased.

With the help of innovation and new technologies, economic growth in America and other rich countries—growth in all of the wants and needs that we spend money on—has become decoupled from resource consumption. This is a recent development and a profound one.

Materials cost money that companies locked in competition would rather not spend. The root of Jevons’s mistake is simple and boring: resources cost money. He realized this, of course. What he didn’t sufficiently realize was how strong the incentive is for a company in a contested market to reduce its spending on resources (or anything else) and so eke out a bit more profit. After all, a penny saved is a penny earned.

Monopolists can just pass costs on to their customers, but companies with a lot of competitors can’t. So American farmers who battle with each other (and increasingly with tough rivals in other countries) are eager to cut their spending on land, water, and fertilizer. Beer and soda companies want to minimize their aluminum purchases. Producers of magnets and high-tech gear run away from REE as soon as prices start to spike. In the United States, the 1980 Staggers Act removed government subsidies for freight-hauling railroads, forcing them into competition and cost cutting and making them all the more eager to not have expensive railcars sit idle. Again and again, we see that competition spurs dematerialization.

There are multiple paths to dematerialization. As profit-hungry companies seek to use fewer resources, they can go down four main paths. First, they can simply find ways to use less of a given material. This is what happened as beverage companies and the companies that supply them with cans teamed up to use less aluminum. It’s also the story with American farmers, who keep getting bigger harvests while using less land, water, and fertilizer. Magnet makers found ways to use fewer rare earth metals when it looked as if China might cut off their supply.

Second, it often becomes possible to substitute one resource for another. Total US coal consumption started to decrease after 2007 because fracking made natural gas more attractive to electricity generators. If nuclear power becomes more popular in the United States (a topic we’ll take up in chapter 15), we could use both less coal and less gas and generate our electricity from a small amount of material indeed. A kilogram of uranium-235 fuel contains approximately 2–3 million times as much energy as the same mass of coal or oil. According to one estimate, the total amount of energy that humans consume each year could be supplied by just seven thousand tons of uranium fuel.

Third, companies can use fewer molecules overall by making better use of the materials they already own. Improving CNW’s railcar utilization from 5 percent to 10 percent would mean that the company could cut its stock of these thirty-ton behemoths in half. Companies that own expensive physical assets tend to be fanatics about getting as much use as possible out of them, for clear and compelling financial reasons. For example, the world’s commercial airlines have improved their load factors—essentially the percentage of seats occupied on flights—from 56 percent in 1971 to more than 81 percent in 2018.

Finally, some materials get replaced by nothing at all. When a telephone, camcorder, and tape recorder are separate devices, three total microphones are needed. When they all collapse into a smartphone, only one microphone is necessary. That smartphone also uses no audiotapes, videotapes, compact discs, or camera film. The iPhone and its descendants are among the world champions of dematerialization. They use vastly less metal, plastic, glass, and silicon than did the devices they have replaced and don’t need media such as paper, discs, tape, or film.

If we use more renewable energy, we’ll be replacing coal, gas, oil, and uranium with photons from the sun (solar power) and the movement of air (wind power) and water (hydroelectric power) on the earth. All three of these types of power are also among dematerialization’s champions, since they use up essentially no resources once they’re up and running.

I call these four paths to dematerialization slim, swap, optimize, and evaporate. They’re not mutually exclusive. Companies can and do pursue all four at the same time, and all four are going on all the time in ways both obvious and subtle.

Innovation is hard to foresee. Neither the fracking revolution nor the world-changing impact of the iPhone’s introduction were well understood in advance. Both continued to be underestimated even after they occurred. The iPhone was introduced in June of 2007, with no shortage of fanfare from Apple and Steve Jobs. Yet several months later the cover of Forbes was still asking if anyone could catch Nokia.

Innovation is not steady and predictable like the orbit of the Moon or the accumulation of interest on a certificate of deposit. It’s instead inherently jumpy, uneven, and random. It’s also combinatorial, as Erik Brynjolfsson and I discussed in our book The Second Machine Age. Most new technologies and other innovations, we argued, are combinations or recombinations of preexisting elements.

The iPhone was “just” a cellular telephone plus a bunch of sensors plus a touch screen plus an operating system and population of programs, or apps. All these elements had been around for a while before 2007. It took the vision of Steve Jobs to see what they could become when combined. Fracking was the combination of multiple abilities: to “see” where hydrocarbons were to be found in rock formations deep underground; to pump down pressurized liquid to fracture the rock; to pump up the oil and gas once they were released by the fracturing; and so on. Again, none of these was new. Their effective combination was what changed the world’s energy situation.

Erik and I described the set of innovations and technologies available at any time as building blocks that ingenious people could combine and recombine into useful new configurations. These new configurations then serve as more blocks that later innovators can use. Combinatorial innovation is exciting because it’s unpredictable. It’s not easy to foresee when or where powerful new combinations are going to appear, or who’s going to come up with them. But as the number of both building blocks and innovators increases, we should have confidence that more breakthroughs such as fracking and smartphones are ahead. Innovation is highly decentralized and largely uncoordinated, occurring as the result of interactions among complex and interlocking social, technological, and economic systems. So it’s going to keep surprising us.

As the Second Machine Age progresses, dematerialization accelerates. Erik and I coined the phrase Second Machine Age to draw a contrast with the Industrial Era, which as we’ve seen transformed the planet by allowing us to overcome the limitations of muscle power. Our current time of great progress with all things related to computing is allowing us to overcome the limitations of our mental power and is transformative in a different way: it’s allowing us to reverse the Industrial Era’s bad habit of taking more and more from the earth every year.

Computer-aided design tools help engineers at packaging companies design generations of aluminum cans that keep getting lighter. Fracking took off in part because oil and gas exploration companies learned how to build accurate computer models of the rock formations that lay deep underground—models that predicted where hydrocarbons were to be found.

Smartphones took the place of many separate pieces of gear. Because they serve as GPS devices, they’ve also led us to print out many fewer maps and so contributed to our current trend of using less paper. It’s easy to look at generations of computer paper, from 1960s punch cards to the eleven-by-seventeen-inch fanfold paper of the 1980s, and conclude that the Second Machine Age has caused us to chop down ever more trees. The year of peak paper consumption in the United States, however, was 1990. As our devices have become more capable and interconnected, always on and always with us, we’ve sharply turned away from paper. Humanity as a whole probably hit peak paper in 2013.

As these examples indicate, computers and their kin help us with all four paths to dematerialization. Hardware, software, and networks let us slim, swap, optimize, and evaporate. I contend that they’re the best tools we’ve ever invented for letting us tread more lightly on our planet.

All of these principles are about the combination of technological progress and capitalism, which are the first of the two pairs of forces causing dematerialization.

#### Growth increases stability and disincentivizes conflict and expansionism---decline causes war.

Szayna et al 17, Research department director of the Defense and Political Sciences Department and a senior political scientist at the RAND Corporation. He has over 30 years of experience in national security policy and defense analysis. From 1997 to 2011 he served as associate director of the Strategy, Doctrine, and Resources Program in RAND's Army Research Division. His research has focused on aspects of strategic planning for the U.S. armed forces, post-conflict stability and reconstruction operations, and coalition interoperability. He gave testimony for the U.S. House of Representatives and has been a keynote speaker at a number of defense conferences. Szayna received a B.A. in history and philosophy from Villanova University and an M.A. in international relations from Claremont Graduate School. Also Angela O’Mahony, Jennifer Kavanagh, Stephen Watts, Bryan Frederick, Tova C. Norlen, Phoenix Voorhies. (“Conflict Trends and Conflict Drivers: An Empirical Assessment of Historical Conflict Patterns and Future Conflict Projections”. 2017. https://www.rand.org/pubs/research\_reports/RR1063.html)

There are a number of factors that could lead to discontinuous changes in this metric. For example, a global economic downturn could lead to sharp reductions in development aid that could threaten any improvements in governance that had been made with the benefit of that assistance. Alternatively, a major jump in global energy costs could induce widespread fiscal crises similar to those of the 1970s and 1980s, ultimately leading to reduced state capacity. The branch scenario in red projects essentially no improvements in state capacity over the period in question, so larger changes would entail the rapid erosion of the capacity of states that are already relatively capable. Such changes are certainly possible, but they would constitute an example of nonlinear disruptive change. On balance, our projection is that state capacity is likely to continue to improve, which will tend to exert a downward pressure on the likelihood of intrastate conflict. Prevalence of Consolidated Democracies Consolidated democracies are less likely to fight one another and to be involved in internal conflict. While this correlation is clear, the mechanism by which democracies reduce conflict is more contested. The literature on interstate conflict has focused on the greater transparency and consistency of democratic regimes that allow them to credibly commit to peaceful solutions to disputes and the possibility that domestic norms and greater political accountability may make democratic states less likely to pursue violent conflicts.8 There are fewer arguments that the greater ability of consolidated democracies to resolve grievances within the political system leads to less intrastate conflict.9 We note, however, that partial democracies or the process of democratization itself may not be particularly peaceful and may even be associated with an increase in conflict.10 Given the importance of consolidated democracy in the literature on conflict, there is already a great deal of work in the academic literature on measurement of democracy. Several aggregate measures of democracy have been developed that include the competitiveness of elections; the state’s respect for civil, political, and minority rights; and freedoms of the press and religion. The most widely used measure of consolidated democracy, and the one we employ, comes from the Polity project. By coding a wide range of regime characteristics, such as political 8 Arend Lijphart, Democracies: Patterns of Majoritarian and Consensus Government in Twenty-One Countries, New Haven, Conn., and London: Yale University Press, 1984; Peter Liberman, Does Conquest Pay? The Exploitation of Occupied Industrial Societies, Princeton, N.J.: Princeton University Press, 1996; Charles Lipson, Reliable Partners: How Democracies Have Made a Separate Peace, Princeton, N.J.: Princeton University Press, 2003. 9 Håvard Hegre, Tanja Ellingsen, Scott Gates, and Nils Petter Gleditsch, “Toward a Democratic Civil Peace? Democracy, Political Change, and Civil War, 1816–1992,” American Political Science Review, Vol. 95, No. 1, March 2001, pp. 33–48; Christian Davenport, State Repression and the Domestic Democratic Peace, New York, N.Y.: Cambridge University Press, 2007. 10 Hegre et al., 2001; Lars-Erik Cederman, Kristian Skrede Gleditsch, and Simon Hug, “Elections and Ethnic Civil War,” Comparative Political Studies, Vol. 46, No. 3, 2012, pp. 387–417. 49 competition and constraints on the executive, an aggregate “Polity score” is produced, ranging from –10 to 10. Values of 6 or higher are typically used to identify the presence of a democracy, with a more conservative measurement of 8 or higher often used to identify consolidated democracies. We use this metric to calculate the percentage of all states that are consolidated democracies, with the historical values denoted by the black line in Figure 3.2. Figure 3.2. Prevalence of Consolidated Democracies SOURCE: Historical data: Monty G. Marshall and Keith Jaggers, Polity IV Data Set [Computer file; version p4v2012], College Park, Md.: Center for International Development and Conflict Management, University of Maryland, 2002; projections calculated by authors. We projected the baseline scenario by fitting a trend line to the historical data and calculating the future values.11 This projection is represented in the figure by the gray line. We calculated the two branch scenarios as one standard deviation above and below the baseline projection; they are shown in the figure by the blue and red lines, respectively. Discontinuous growth in the prevalence of democracies could result from various tippingpoint effects. If a high percentage of the world’s population were governed through democracy, other forms of government may come to be seen as illegitimate, and greater international pressure may be brought to bear to remove them. Within the time frame of our study, a dramatic reversal in the prevalence of consolidated democracies appears to be less likely. The reversion of 11 The trend line was fit using a generalized linear model linked to a binomial logit function. The resulting projections are therefore bounded between 0 and 1 (in this case, 0 and 100 percent). The model used in Figure 3.2 has a Pearson statistic (1/df) of .0037, suggesting a high degree of fit with the data. 50 consolidated democracies to autocracies historically has been extremely rare and is unlikely in the absence of extreme economic decline, the conquest of democracies by more powerful autocracies, or both. Either of these potential paths is likely to lead directly to increases in future conflict levels as well. Degree of Ethnic and Sectarian Polarization The academic literature generally agrees that a high level of ethnic and sectarian polarization is not sufficient by itself to cause conflict either within or between states. However, there is also agreement that in the intrastate context, where group mobilization occurs along ethnic lines, identity can become a significant contributing factor for violence, especially when strengthened by socioeconomic and sociopolitical grievances. Consequently, we identified the degree of ethnic and sectarian polarization as one of the primary factors likely to affect the level of intrastate conflict in the future. Evidence also shows that while ethnicity may not lead to conflict by itself, it may work to prolong conflicts and increase the intensity of violence in those conflicts that are already occurring.12 Such effects will most likely be strengthened if ethnic groups are deliberately disadvantaged by the state or if they are territorially based and have secessionist or separatist demands.13 Scholars tend to agree that ethnic and sectarian polarization, while a strong predictor for increased levels of intrastate conflict, is not a strong driver for conflicts between states. However, if regional and international actors become involved in intrastate conflicts, or if conflicts spread across borders, such polarization could also affect levels of interstate conflict. Such a scenario is especially likely where ethnic kin-groups in neighboring states become involved with secessionist movements.14 Quantifying ethnic and sectarian polarization is inherently difficult. While various measures have been tried, such as linguistic differences (e.g., ethno-linguistic fractionalization) or religious preferences, they are often criticized for not capturing the cleavage that gives rise to political mobilization. For example, different ethnic groups may share the same religion, and one ethnic group may speak multiple languages. It can also be difficult to determine when certain identities in a society are increasing in salience, and when they are becoming less relevant. One prominent 12 Rajat Ganguly and Raymond Taras, Understanding Ethnic Conflict: The International Dimension, Longman Publishers, 2002; Fearon and Laitin, 2003; and Daniel Bar-Tal, “Sociopsychological Foundations of Intractable Conflicts,” American Behavioral Scientist, Vol. 50, No. 11, 2007. 13 Gurr, 1970; Stephen M. Saideman, and William R. Ayres, “Determining the Causes of Irredentism: Logit Analyses of Minorities at Risk Data from the 1980s and 1990s,” Journal of Politics, Vol. 62, No. 4, November 2000, pp. 1126–1144; Monica Duffy Toft, The Geography of Ethnic Violence: Identity, Interests, and the Indivisibility of Territory, Princeton, N.J.: Princeton University Press, 2003. 14 John A. Vasquez, and Brendan Valeriano, “Territory as a Source of Conflict and a Road to Peace,” in Jacob Bercovitch, Viktor Kremenyuk, and I. William Zartman, eds., The Sage Handbook of Conflict Resolution, Los Angeles, Calif.: SAGE, 2009, pp. 193–209. 51 attempt to quantify relevant ethnic identities is the Minorities at Risk data set at the University of Maryland, which identifies minority groups by their “at risk” status—that is, by the extent to which they are disadvantaged in their relationships with other groups in the state in which they reside. However, the Minorities at Risk data identify such “at risk” groups somewhat subjectively, and the project does not claim to be comprehensive. An alternative, objective measure is to look for the degree of formal discrimination against ethnic, religious, or linguistic groups. The creation or removal of official laws providing for formal discrimination can help to identify states where identity-based grievances may become more or less salient. For capturing the degree of ethnic and sectarian polarization, therefore, we looked at the percentage of states with formal discrimination against minorities, where such minority groups make up at least 5 percent of the state’s population. We used the Ethnic Power Relations data set (EPR), which tracks the extent of access to state power for all politically relevant ethnic groups in every country of the world from 1946 to 2013. It includes annual data on more than 733 groups and codes the degree to which their representatives held executive-level state power—from total control of the government to being formally barred from holding political office. While the disadvantage of such a proxy may be that it potentially fails to capture some of the unofficial social discrimination that can lead to group mobilization, the advantage is that it allows for a more objective measure of sectarian tension. The overall levels of ethnic or sectarian polarization in the figure below may therefore be understated, but we can have more confidence in the general trend line than we could with more subjective data sources. We projected the baseline scenario by fitting an exponential trend line to the available historical data and calculating the future values.15 The projection is shown by a gray line in Figure 3.3. We calculated the two branch scenarios as one standard deviation above and below the baseline projection; they are shown by a red and blue line, respectively. 15 The exponential trend line fit to the data has the equation: y = 0.3098e-0.012x. The trend line has a high degree of fit with the data, with an R² of 0.85. 52 Figure 3.3. Percentage of States with Discriminated Minorities SOURCE: Historical data: Andreas Wimmer, Lars-Erik Cederman, and Brian Min, “Ethnic Politics and Armed Conflict: A Configurational Analysis of a New Global Data set,” American Sociological Review, Vol. 74, No. 2, 2009, pp. 316–337; projections calculated by authors. Discontinuous change in this variable may occur as a result of several factors. Historically, ethnic and sectarian factors often have increased in relevance after the breakup of larger states and empires, including the breakup of the Soviet Union in the early 1990s, or the end of colonialism in the 1960s. The breakup of other large, multiethnic states in the future could result in a similar outcome. Extremely high levels of resource stress because of population pressures also could prompt increased ethnically based conflict within states. Ethnic and sectarian polarization and grievances are latent in many societies, and may become politically important in order to mobilize groups to violence under conditions of severe resource or economic privation. Rate of Economic Growth Economic growth affects the prevalence of conflict in several ways. While territorial expansion traditionally has been a major cause of interstate war, states with higher levels of economic development may be less motivated to pursue such expansion because of the lower relative value of land inputs in an industrialized economy. Moreover, their reliance on international capital markets may increase the potential costs of disruptions from serious 53 international crises.16 At the intrastate level, economic growth (if broadly shared) reduces grievances, bolsters the capacity of the state to handle security challenges, and increases the population’s opportunities for licit employment, thus raising the opportunity costs of participating in rebellions or insurgencies.17 Growth benefits that accrue along ethnic or sectarian lines, however, might increase the potential for intrastate conflict, as discussed in the previous section, and sharp declines in the rate of economic growth could be associated with an increased risk of internal conflict as well.18 Therefore, there are at least two different concepts that any operationalization of this factor should attempt to capture: the overall level of economic development and changes in the rate of economic growth. Over the short term, wealthy countries tend to remain wealthy and poor countries tend to remain poor, and their degree of wealth may have a strong effect on their overall likelihood of being involved in conflict. In addition, sharp declines in the rate of growth for a range of states may increase their likelihood of intrastate conflict in particular.

### 2ac --- ontology

#### Framing setter colonialism as an ontological structure shuts down indigenous futures and reifies settler dominance

Busbridge 18 — Rachel Busbridge (Research Fellow at the Centre for Dialogue, La Trobe University), 2018, “Israel-Palestine and the Settler Colonial ‘Turn’: From Interpretation to Decolonization,” Theory, Culture & Society Vol 35, Issue 1, 2018, dml)

The prescription for decolonisation—that is, a normative project committed to the liberation of the colonised and the overturning of colonial relationships of power (Kohn & McBride, 2011: 3)—is indeed one of the most counterhegemonic implications of the settler colonial paradigm as applied to IsraelPalestine, potentially shifting it from a diagnostic frame to a prognostic one which offers a ‘proposed solution to the problem, or at least a plan of attack’ (Benford & Snow, 2000: 616). What, however, does the settler colonial paradigm offer by way of envisioning decolonisation? As Veracini (2007) notes, while settler colonial studies scholars have sought to address the lack of attention paid to the experiences of Indigenous peoples in conventional historiographical accounts of decolonisation (which have mostly focused on settler independence and the loosening of ties to the ‘motherland’), there is nevertheless a ‘narrative deficit’ when it comes to imagining settler decolonisation. While Veracini (2007) relates this deficit to a matter of conceptualisation, it is apparent that the structural perspective of the paradigm in many ways closes down possibilities of imagining the type of social and political transformation to which the notion of decolonisation aspires. In this regard, there is a worrying tendency (if not tautological discrepancy) in settler colonial studies, where the only solution to settler colonialism is decolonisation—which a faithful adherence to the paradigm renders largely unachievable, if not impossible. To understand why this is the case, it is necessary to return to Wolfe’s (2013a: 257) account of settler colonialism as guided by a ‘zero-sum logic whereby settler societies, for all their internal complexities, uniformly require the elimination of Native alternatives’. The structuralism of this account has immense power as a means of mapping forms of injustice and indignity as well as strategies of resistance and refusal, and Wolfe is careful to show how transmutations of the logic of elimination are complex, variable, discontinuous and uneven. Yet, in seeking to elucidate the logic of elimination as the overarching historical force guiding settler-native relations there is an operational weakness in the theory, whereby such a logic is simply there, omnipresent and manifest even when (and perhaps especially when) it appears not to be; the settler colonial studies scholar need only read it into a situation or context. It thus hurtles from the past to the present into the future, never to be fully extinguished until the native is, or until history itself ends. There is thus a powerful ontological (if not metaphysical) dimension to Wolfe’s account, where there is such thing as a ‘settler will’ that inherently desires the elimination of the native and the distinction between the settler and native can only ever be categorical, founded as it is on the ‘primal binarism of the frontier’ (2013a: 258). It is here that the differences between earlier settler colonial scholarship on Israel-Palestine and the recent settler colonial turn come into clearest view. While Jamal Hilal’s (1976) Marxist account of the conflict, for instance, engaged Palestinians and Jewish Israelis in terms of their relations to the means of production, Wolfe’s account brings its own ontology: the bourgeoisie/proletariat distinction becomes that of settler/native, and the class struggle the struggle between settler, who seeks to destroy and replace the native, and native, who can only ever push back. Indeed, if the settler colonial paradigm views history in similar teleological terms to the Marxist framework, it does not offer the same hopeful vision of a liberated future. After all, settler colonialism has only one story to tell— ‘either total victory or total failure’ (Veracini, 2007). Veracini’s attempt to disaggregate different forms of settler decolonisation is revealing of the difficulties that come along with this zero-sum perspective. It is significant to note that beyond settler evacuation (which may decolonise territory, he cautions, but not necessarily relationships) the picture he paints is a relatively bleak one. For Veracini (2011: 5), claims for decolonisation from Indigenous peoples in settler societies can take two broad forms: an ‘anticolonial rhetoric expressing a demand for indigenous sovereign independence and self-determination… and an “ultra”-colonial one that seeks a reconstituted partnership with the [settler state] and advocates a return to a relatively more respectful middle ground and “treaty” conditions’. While both, he suggests, are tempting strategies in the struggle for change, though ‘ultimately ineffective against settler colonial structures of domination’ (2011: 5), it is the latter strategy that invites Veracini’s most scathing assessment. As he writes, under settler colonial conditions the independent polity is the settler polity and sanctioning the equal rights of indigenous peoples has historically been used as a powerful weapon in the denial of indigenous entitlement and in the enactment of various forms of coercive assimilation. This decolonisation actually enhances the subjection of indigenous peoples… it is at best irrelevant and at worst detrimental to indigenous peoples in settler societies (2011: 6-7). The ‘primal binarism of the frontier’ plays a particularly ambivalent role in Veracini’s (2011: 6) formulation, where the categorical distinction between settler and native obstructs the ‘possibility of a genuinely decolonised relationship’ (by virtue of its lopsidedness) yet is a necessary political strategy to guard against the absorption of Indigenous people into the settler fold, which would represent settler colonialism’s final victory. The battle here is between a ‘settler colonialism [that] is designed to produce a fundamental discontinuity as its “logic of elimination” runs its course until it actually extinguishes the settler colonial relation’ and an anti-colonial struggle that ‘must aim to keep the settler-indigenous relationship going’ (2011: 7). In other words, the categorical distinction produced by the frontier must be maintained in order to struggle against its effects. Given the lack of options presented to Indigenous peoples by Veracini (2014: 315), his conclusion that settler decolonisation demands a ‘radical, post-settler colonial passage’ is perhaps not surprising – although he has ‘no suggestion as to how this may be achieved and [is] pessimistic about its feasibility’. Scholars have long reckoned with the ambivalence of the settler colonial situation, which is simultaneously colonial and postcolonial, colonising and decolonising (Curthoys, 1999: 288). Given the generally dreadful Fourth World circumstances facing many Indigenous peoples in settler societies, it could be argued that there is good reason for such pessimism. The settler colonial paradigm, in this sense, offers an important caution against celebratory narratives of progress. Wolfe (1994), it must be recalled, wrote the original articulation of his thesis precisely against the idea of ‘historical rupture’ that dominated in Australia post-Mabo, and was thus as much a scholarly intervention as it was a political challenge to the idea of Australia having broken with its colonial past. Nonetheless, the fatalism of the settler colonial paradigm—whereby decolonisation is by and large put beyond the realms of possibility—has seen it come under considerable critique for reifying settler colonialism as a transhistorical meta-structure where colonial relations of domination are inevitable (Macoun & Strakosch, 2013: 435; Snelgrove et al., 2014: 9). Not only does Wolfe’s ontology erase contingency, heterogeneity and (crucially) agency (Merlan, 1997; Rowse, 2014), but its polarised framework effectively ‘puts politics to death’ (Svirsky, 2014: 327). In response to such critiques, Wolfe (2013a: 213) suggests that ‘the repudiation of binarism’ may just represent a ‘settler perspective’. However, as Elizabeth Povinelli (1997: 22) has astutely shown, it is in this regard that the totalising logic of Wolfe’s structure of invasion rests on a disciplinary gesture where ‘any discussion which does not insist on the polarity of the [settler] colonial project’ is assimilationist, worse still, genocidal in effect if not intent. Any attempt to ‘explore the dialogical or hybrid nature of colonial subjectivity’—which would entail working beyond the bounds of absolute polarity—is disciplined as complicit in the settler colonial project itself, leaving ‘the only nonassimilationist position one that adheres strictly and solely to a critique of [settler] state discourse’. This gesture not only disallows the possibility of counter-publics and strategic alliances (even limited ones), but also comes dangerously close to ‘resistance as acquiescence’ insofar as the settler colonial studies scholar may malign the structures set in play by settler colonialism, but only from a safe distance unsullied by the messiness of ambivalences and contradictions of settler and Native subjectivities and relations. Opposition is thus left as our only option, but, as we know from critical anti-colonial and postcolonial scholarship, opposition in itself is not decolonisation. In his defense of settler colonial studies against criticisms that it is unable to account for political action, Veracini (2014: 312) has maintained that settler colonialism is an interpretive paradigm, not a transformative one: ‘settler colonial studies’, he writes, ‘is only ultimately accountable for the way it is effective in explaining things’. Yet, as I have already noted, this is not precisely the case in the context of Israel-Palestine. Not only is the settler colonial paradigm increasingly associated with particular normative projects, namely a critique of the two-state solution and advocacy for a single democratic state (e.g. Collins, 2011), but both Veracini and Wolfe have ventured into the question of ‘solutions’ in their respective accounts of the dynamics of Zionist settler colonialism. While they are quite divergent in their readings of what it would mean to decolonise Israel-Palestine, I suggest that they are nevertheless indicative of the limitations of the settler colonial paradigm’s structural perspective, which flattens manifestations of settler colonialism and lends itself to certain parameters. These parameters neglect important differences between Israel-Palestine and its typical sites of comparison—not least of which is the relative ‘completeness’ of settler ethnic cleansing efforts and the political geographies and modes of legal governance they produce (Gordon & Ram, 2016)—, which have important implications for any project of decolonisation. After all, if there is there is no one-size-fits-all model of colonialism, there is no route to decolonisation appropriate to all contexts (see Kohn & McBride, 2011). In this last section, I want to engage Veracini and Wolfe’s accounts as a means to trace some of these areas of neglect, and, in so doing, gesture towards issues in need of serious reckoning in the settler-colonial paradigm’s prescription for decolonisation. For Veracini (2013: 26), the conflict is best understood in terms of how the Zionist settler colonial project to establish a Jewish-majority state in historic Palestine is complicated and compromised by the ongoing occupation. If success is a matter of perceived legitimacy, Veracini takes 1967 as marking a decline in the success of Israeli settler colonial practice and suggests that the occupation itself is an instance of failed settler colonialism, insofar as Israel has largely failed in having its West Bank settlements recognised as part of the settler colonial state (p. 30). When settler colonialism fails in its attempt to extinguish the colonial relation, he asserts, it reverts to colonialism where the colonial relation is underscored. This explains both the permanency of the occupation—if ‘the Occupation was established as a means to enable permanent settlements, now it is the settlements that perpetuate the need for permanent occupation’—and the radical turn to the Right inside Israel, which has seen ‘the integration of Israeli Arabs… progressively reversed’ and the ‘autonomy of the settler colonial project eroded’ by an increasing reliance on external support from international allies and the Jewish diaspora (pp. 32-3). This ‘simultaneous coexistence of successful and failed settler colonialisms’ (p. 39) means that ‘approaching the conflict would probably require a suite of solutions’ (p. 27). Nevertheless, Veracini is rather coy about what these may be. On the one hand, he emphasises that the ‘decolonisation paradigm’ is only really available to the West Bank and Gaza Strip, and that other frameworks must be made available to Palestinians inside Israel and those in the diaspora who, by virtue of the success of the Israeli settler project inside Israel, have effectively had decolonisation taken off the table (p. 40). On the other hand, he seems to suggest that any solution will nonetheless be unable to escape the colonial conditions that have shaped it. If two-states is a ‘colonial solution’, because ‘internationally sanctioned Palestinian independence (and associated forms of neo-colonial dependency)… should be seen as the colonial occupation’s logical outcome, not its demise’, onestate ‘turns out to be the settler colonial solution’ because it signals the permanency of the settler polity (p. 33, 39). Wolfe (2012), in contrast, is far more direct about his preference for a single democratic and secular state in Israel-Palestine. The two-state solution, he suggests, is not only ‘liberal subterfuge’, but an oxymoron, because of its inability to reckon with the ways in which the ‘New Jew’ Zionism has sought to construct needs the contrapuntal presence of the Palestinians to come into being—without the Palestinians, Israel would fracture under the weight of its own internal diversity (pp. 319-20). Wolfe is especially troubled by the religious/secular division that plagues Zionism as an ostensibly secular national movement framed around the notion of Jewish return, and which has become more politically salient with the religious-national settlement movement that has taken hold in Israeli politics since the late 1970s. The ‘ascendancy of [this] religious element’ is of particular concern, loading the settler will to eliminate the native with an additional theological dimension; should Israel ‘be finally cleansed of its Natives’, he warns, it would only be ‘left with a choice between theocracy and implosion’ (p. 318). Thus the appeal of a single state solution: not only does it deal with the tricky questions of territory and sovereignty in one fell swoop, but it also does away with this risk of theocracy. Additionally, it dissolves the ‘irreducible contradictions between Zionism’s twin goals of territorial expansion and ethno-racial exclusiveness’: ‘in a secular state… that exists for its citizens rather than co-religionists this intractable problem disappears’ (p. 321). The desire for ethnic purity that has characterised Zionism to date becomes its greatest asset in this regard, namely because it does not allow for the assimilation of Palestinians. Thus, for Wolfe, [r]ather than absorbing the colonised population into the ranks of the colonisers, and thereby eliminating that population, a secular democracy does not require the elimination of either—or, better, any— of its constituent ethnicities. That is the whole point (p. 321). In this sense, ‘a unified state not only dismantles Zionism. In the process, it dismantles settler colonialism’ (p. 321). If Veracini offers a seemingly impossible vision of decolonisation in IsraelPalestine, where any solution would be compromised by the colonial conditions preceding it, Wolfe’s vision seems in comparison impossibly easy: not only can Zionism be dismantled, but so too can settler colonialism. This is in stark (and surprising) contrast to his generally fatalistic take on structural transformation in settler colonial societies. It is, however, particularly revealing of the tendency in settler colonial scholarship to regard Zionism as purely settler colonial and the conflict akin to any other settler colonial context (e.g. Collins, 2011). Both Veracini and Wolfe are guilty of this, even as they are otherwise attentive to many of the particularities of the conflict. Wolfe (2013b: 9), for instance, identifies ‘Zionism as settler colonialism pure and simple’, if not a particularly voracious form stuck at the frontier stage. Likewise, Veracini (2015: 1-2) suggests that the ‘settlement, nothing else, [is] the absolute core of Zionist practice’, going so far as to claim that ‘what is in front of us is not a conflict situation, it is actually a postconflict’ (‘postconflicts’, he notes, ‘are rarely peaceful’). Tim Rowse (2014) has argued the tendency towards ahistorical and decontextualised analysis in settler colonial studies means that it misses much about the variety of geographical and regional forms settler colonialism takes. It is equally important, however, to recognise that the settler colonial frame itself is by no means ahistorical or decontextualised. To the contrary, settler colonial studies is very much an Antipodean perspective, having emerged primarily within an Australian context, and it is fair to say that this is evidenced in its main preoccupation with white settler societies. While all transnational frames have to be developed somewhere, the structural emphasis of the settler colonial paradigm not only obfuscates this local heritage but means that its vernacularisation is often replication, which is where the ‘imported institution remains largely unchanged from its transnational prototype [and] the adaptation is superficial and primarily decorative’ (Merry, 2006: 44). This can be evidenced in Wolfe and Veracini’s respective accounts of decolonising Israel-Palestine, which leave the national dimensions of the conflict under-examined and fail to address the unique affective and socio-political resonances of the native/settler distinction in the Israeli-Palestinian context. As Wolfe (2012: 287) points out, the circumstances and intentions of settler colonisers is inconsequential from a Native point of view, and both he and Veracini perhaps quite rightly prioritise the historical outcomes of Zionism (namely, the displacement of the Palestinians) over all other meanings attached to it. Nevertheless, it is important to recognise that there is a strong nationalist aspect to Zionism, which is after all a national movement geared towards Jewish self-determination. This marks it as a particularly unique— although not singular—form of settler colonialism. In contrast to settler colonies like Australia where the drive for a settler identity separate from the metropole only emerged much later, the impetus towards an exclusive form of settler self-determination has shaped almost all aspects of the conflict in Israel-Palestine since at least the second aliyah that reached Palestine between 1904 and 1914 (see Shafir, 1989). Of course, Zionism is not the only colonialist project to be carried out in the name of ostensibly nationalist ideals—the French colonisation of Algeria is widely cited as a case in point (Pappe, 2008: 612-3). Yet, it does mean that understanding Zionism’s nationalist impulse is crucial to understandings its political strengths and continued affective resonance; ‘a simple dismissal of Zionism’, Jacqueline Rose (2005: 13) appeals, ‘fatally undermines the case it is intended to promote’. Moreover, as Pappe (2008: 613) stresses, ‘labelling Zionism as nationalist or national [by no means] absolve[s] it from the accusations of dispossession and occupation’ (my emphasis). Nor does it lessen its crimes against the Palestinian people. While the Palestinian anti-colonialism has historically been entangled with a broader pan-Arabism, it is similarly impossible to understand it outside of a nationalist vocabulary and the struggle for national self-determination (Said, 1979). Given that the settler paradigm is nominally able to incorporate the Palestinian struggle for national self-determination under the rubric of decolonisation, it is striking that neither Wolfe nor Veracini reckon in any rigorous way with implications of Palestinian nationalism in their respective accounts.5 Wolfe’s (2012: 231) one-state, for instance, ‘does not require the elimination of its constituent ethnicities’, neglecting not only that the affirmation of those ethnicities is also a powerful political driver in the ongoing conflict, but that the affirmation of identity for colonised peoples has been a defining feature of decolonising projects in general (Fanon, 1967). Veracini’s (2013) efforts at disentangling the colonial from the settler colonial would similarly seem to reinforce the Green Line’s fragmentation of the Palestinian polity into those in the ‘territories’ and those inside ‘Israel proper’, thus undermining the paradigm’s potential to aid Palestinian nation-building efforts. The lack of attention paid to the Jewish drive for ethno-national selfdetermination, however, is not surprising. From the perspective of settler colonial studies, the question of settler self-determination is an especially fraught one: not only is it seen as a particular historical relic (loosening ties to the ‘motherland’), but settler colonial scholarship has concerned itself precisely with critiquing how the notion of settler self-determination legitimises continued dominance over Indigenous peoples. Additionally, in the context of contemporary white settler societies like Australia, Canada and the United States, the claim for ethno-national self-determination simply does not make sense (save for a few at the very periphery of politics) given that the shape of the polity is more civic than ethnic. Indeed, it is the settler colonial polity’s ability to subsume Indigenous alterity that is regarded as most troubling in the settler colonial paradigm; assimilation is, after all, the final stage in the logic of elimination (Wolfe, 1994). It is from this perspective that we can make sense of Veracini’s insistence that the one-state is the settler colonial solution. Yet, as Wolfe makes clear, Zionism has little capacity to assimilate Palestinians: the lines of identity, driven as they are by a dichotomy of Jew/non-Jew determined by a tribal notion of maternal blood-lineage, are simply too firm for serious parallels to be made between Israel and the white settler societies with which it is typically compared. While Wolfe’s (2012: 320) account is more sensitive to these dynamics, his vision of a secular, civic, inclusive and plural united state (which he interestingly addresses to European Ashkenazi Jews) would nevertheless seem to leave aside the ways in which such plurality is fiercely charged in the Israeli-Palestinian context—and is, most certainly, also characterised by a religious dimension for Israelis and Palestinians alike. In this regard, Wolfe replicates much debate on the one-state solution, which presumes that Jews would be incorporated into a single state as a neutral and repentant collectivity (Farsakh, 2011: 70). If even a one-state solution would have to reckon with the reality that the very presence of Israeli Jews as a settler collective is grounded on a history of dispossession and occupation, then surely dismantling Zionism—as per Wolfe’s wish—is not enough to dismantle settler colonialism. Perhaps the question is less one of dismantling Zionism than it is of decolonising Jewish Israeli identity and its settler colonial privileges, which, as Theodora Todorova (2015) argues, are most powerfully connected to the Jewish right to return—a right in turn denied to the Palestinians. This is something missed by Veracini, who takes the intimate connections between Israel and the Jewish diaspora as a sign of weakness in the settler colonial project, when this complicated entanglement with diaspora is in fact constitutive of Zionist settler colonialism. If Wolfe and Veracini fail to fully engage the conflict’s nationalist dimensions, they are also strangely silent on the resonances and implications of the settler/native distinction in the Israeli-Palestinian context. Indeed, one of the weaknesses of the settler colonial paradigm as a whole is its inability to fully reckon with Indigenous and settler identities as interactive, mutable and contingent processes of social signification. For Wolfe, the native/settler distinction is only socially constructed insofar as it is forged at the moment the settler decides she wants to stay; yet, as Francesca Merlan (2009) has argued, ‘Indigeneity’ as a transnational category cannot be understood outside of the historical processes

### 2ac --- psycho

#### Psychoanalysis is wrong and racist.

Frosh 13 Stephen Frosh, Department of Psychosocial Studies, School of Social Sciences, History and Philosophy, Birkbeck College, London, UK. Journal of Theoretical and Philosophical Psychology, “Psychoanalysis, Colonialism, Racism” 2013, Vol. 33, No. 3, 141–154

This article explores the prospects for a psychological contribution to postcolonial thought through the mediation of psychoanalysis. It does not attempt to deconstruct or historicize postcolonialism itself, at least to any significant extent, further than to state the need for a postcolonial theory of the subject that incorporates an understanding of affective and “subjective” issues—precisely the area with which psychoanalysis is primarily concerned. The positioning of psychoanalysis as a progressive, critical approach is not, however, a particularly secure one. The central difficulty is the way psychoanalysis has frequently aligned itself with conformist and even “repressive” tendencies that reproduce colonial and at times racist tropes, often in the context of psychological individualism, but sometimes in an explicitly political manner (Jacoby, 1983; Frosh, 1999). This is despite the existence of a contrary urge in psychoanalysis, especially reflected in the “critical theory” tradition that made use of it in the 1950s and 1960s (e.g., Marcuse, 1955) but also in the work of several followers of Lacan (Stavrakakis, 2007) and some British social reformists (Rustin, 1991). The tendency of American ego psychology to give prominence to “adaptationist” perspectives has been widely noted and has been criticized both by political radicals (e.g., Jacoby, 1975, 1983) and by Lacanians (cf. Roudinesco, 1990, p. 175: “According to [Lacan] such a psychological science had been affected by the ideals of the society in which it was produced”). The adoption of a strong antihomosexual bias by orthodox mid-20th century psychoanalysts has had particularly damaging consequences for the practice and reputation of psychoanalysis as a whole, even though recent attempts to reconcile psychoanalysis and queer theory are beginning to bear fruit (Frosh, 2006; Campbell, 2000). Psychoanalytic assumptions about the nature of a civilized mind will be briefly discussed below; but overt forms of racism, notably antisemitism, have also on occasions been evident in its institutional practices (Frosh, 2005, 2012). Most relevantly, colonialism is a deeply problematic issue for psychoanalysis, because it is engrained in much psychoanalytic thinking and terminology, and this has effects on contemporary theory and practice in ways that are not always recognized. For example, as discussed further below, psychoanalysts often draw on the language of the “primitive” to refer to unreasoning elements of people’s psychic lives. Thus, a notion that someone might be evincing a “primitive fantasy of destruction” is a very familiar one, but what is not acknowledged is that this terminology not only has its roots in a colonial opposition between primitive and civilized, but it also reproduces this division “unconsciously” when it is used. This is to say, the terminology is full of associations that position some ideas as civilized and some as primitive, reinforcing a developmental scheme that is heavily inflected by assumptions about the relationship between seemingly irrational and rational thought processes— and in particular who might “own” them. The history of this stretches back to the beginnings of psychoanalysis, reflecting the colonial and racist (including antisemitic) assumptions prevalent in the Europe out of which psychoanalysis arose. Freud deployed the idea that the thinking of what he called “savages” was not only contrasted to “civilized” mentality, but also revealed the origins of mental life both for the culture as a whole (the contemporary savage being a throwback to the precursors of modern “man”) and for the individual (the savage mind being like that of a child). For example, at the beginning of Totem and Taboo, subtitled Some Points of Agreement between the Mental Lives of Savages and Neurotics, he wrote, There are men still living who, as we believe, stand very near to primitive man, far nearer than we do, and whom we therefore regard as his direct heirs and representatives. Such is our view of those whom we describe as savages or half-savages; and their mental life must have a peculiar interest for us if we are right in seeing in it a well-preserved picture of an early stage of our own development. (Freud, 1913, pp. 1) The repetitive first person plural pronoun is notable here: “we believe,” “we do,” “we regard,” “our view,” “we describe,” “us,” “our own development”. The savage is the other, the not “us”; though as will be outlined briefly below, there is quite a degree of subtlety in what this might mean. Freud also was explicit about how “savages” share attributes with children, both in terms of how they think, and how they are thought about by “we adults”. “It seems to me quite possible,” he wrote (p. 99), “that the same may be true of our attitude toward the psychology of those races that have remained at the animistic level as is true of our attitude toward the mental life of children, which we adults no longer understand and whose fullness and delicacy of feeling we have in consequence so greatly underestimated”. The adoption of a binary between savage and civilized is not perhaps intrinsically racist and colonialist, but the assumption that the latter always displaces the former and, more importantly, that the terms can be applied to different people, is. In Freud’s thought, savage societies hold to various types of irrational thinking (concreteness, mystical attitudes to death, etc.), processes reviewed throughout Totem and Taboo (Freud, 1913) and explicitly linked with children in more “civilized” societies. For instance, in writing of wish fulfillment (p. 84), Freud commented, If children and primitive men find play and imitative representation enough for them, that is not a sign of their being unassuming in our sense or of their resignedly accepting their actual impotence. It is the easily understandable result of the paramount virtue they ascribe to their wishes, of the will that is associated with those wishes and of the methods by which those wishes operate. These ways of thinking make them “primitive” in the developmental sense that they should normatively be overcome by more advanced modes of being—a theme also taken up in the analysis of religion in The Future of an Illusion (Freud, 1927). Although Freud himself does not press for political action that does this— he was interested rather in how science might overcome superstition—the general approach is consistent with the justification of colonialism and even slavery on the grounds of the inherent inferiority of the primitive. There is another subtle turn here, however, that is specific to Freud and the early history of psychoanalysis, relating to the intense antisemitism of Freud’s time. Gilman (1993) showed how deeply rooted antisemitism was in the beliefs of many Europeans, markedly so in the Viennese among whom psychoanalysis grew up, and how widespread were ideas such as that Jews were castrated (hence, feminine), that they were “oriental” and maybe even “black,” and that they were primitive in the religious sense (Christianity having displaced Judaism) but also psychologically, socially, and racially. Gilman suggested that Freud, consciously or unconsciously, constructed some of the most conspicuously radical elements of his theory in response to this. For instance, Gilman argued that the trope that Jewish men are castrated through circumcision is replaced in psychoanalysis by the idea that the castration complex is universal, so that all people— including the most gentile—follow a model set by the Jews. This Freudian impulse to disarm antisemitism by positioning the Jews as the truly civilized people (which was mirrored in the idea that as nationalism took hold in Europe at the end of the 19th century, the Jews might be the only “true Europeans” oriented toward a transnational comity) results in a shifting of the “other” of European society away from the Jew and toward the “savage,” that is, the colonized, Black “primitive” of slavery and the European imagination. This theoretical move attempts to relieve Jews from the opprobrium of primitivity (unsuccessfully, as was demonstrated unequivocally just a few years later) by passing it onto the colonized other. There is always a danger with summary accounts such as this one, that the history it sketches simplistically reduces a tension-filled and ambiguous process to a linear narrative. It is certainly the case, for example, that psychoanalysis was from the start full of impulses that challenged and subverted the assumptions of the societies in which it found itself. Indeed, this is one reason for the mixture of explosive embrace and resistance that characterized the response to psychoanalysis: On the one hand, it fuelled enormous shifts in self-perception, artistic creativity and even political and economic thought (not confined to outspoken radicals— see, e.g., John Maynard Keynes’, 1919, 1936, post-World War 1 use of Freudian ideas to argue for the importance of emotional factors in economics). In many respects, it is precisely in the tension between what Toril Moi (1989, p. 197) called, in relation to the attitude of psychoanalysis to femininity, Freud’s “colonizing impulse” and its contrary acceptance of “the logic of another scene”—the specific expressiveness of unconscious life—that the creativity of psychoanalysis inheres. Nevertheless, consideration of the rootedness of much psychoanalytic thought in colonial assumptions is important not merely to sweep away the ideological detritus, but also to identify where the investments of psychoanalysis can provide leverage for understanding the place of psychosocial theory in the postcolonial project. A further example of the “detritus” might be found in some work by Celia Brickman (2003), which offers an extensive account of how the language of primitivity infects psychoanalysis. Like Gilman, she notes how Freud’s “universalizing reconfigurations” (p. 165) turn the despised Jewish body into the model for humanity as a whole. From the perspective of postcolonialism, however, this move, which is subversive in relation to antisemitism, is “made at considerable expense,” because “the modalities of inferiority previously ascribed to the Jews did not simply disappear but were ambivalently displaced onto a series of abjected others: primitives, women and homosexuals”. Brickman elaborated on how the assimilation of the Jewish other to Europeanism positions psychoanalysis as a colonialist discipline and incorporates racism into its fabric of argumentation. Categorized as a member of a primitive race, Freud repudiated primitivity, locating himself and his work within European civilization, with both its scientific and colonizing enterprises, and replacing the opposition of Aryan/Jew with the opposition of civilized/primitive (p. 167). In relation to psychoanalytic practice, primitive usually means either or both of fundamental and irrational. A primitive impulse is never a rational one; it always arises unmediated from the unconscious and hence has not been worked over by the secondary processes of thought. The sleight of hand then is to link this kind of primitivity with the irrationality of the colonized other and then to make rationality itself the marker of civilized human society— or even of what it means to be human at all. After all, when one loses one’s power of reason, one ceases to be able to function as human at least to the degree that equal citizenship is at risk. In the colonial context, this justifies colonization: irrational primitives cannot be trusted to run their own affairs; the civilized European is justifiably superior, for everyone’s good. Commenting on Freud’s anthropological speculation, Brickman (2003) noted how the psyche comes to be envisaged as a representation of colonialism and hence how Freud explicitly parallels the structure of the mind with that of (colonial) society: [By] correlating the progression of narcissism, the oedipal stage, and maturity with animism (savagery), religion (barbarianism), and science (civilisation), Totem and Taboo transposed the racial assumptions of the cultural evolutionary scale onto the modern psyche . . . The psychoanalytically conceived norm of mature subjectivity was, by virtue of the correlation of libidinal development with the cultural evolutionary scale, a rationalism whose unstated color was white, just as its unstated gender was male. (p. 72) Even though these Freudian assumptions are mainly unstated, the terminology and the conceptual baggage of the savage” and the barbarian remained with psychoanalysis for some time and is still lying only just-dormant in those references to “primitive feelings” that often can be found in clinical psychoanalytic discussions. A certain mode of rationality is given priority here, which is attached to masculine “reason” as it has developed over the period of industrial modernity (Frosh, 1994). That which falls short of it—the “unreason” attributed to women, children, and primitive cultures—is derogated and made subject to reason’s imperialism. This is not, of course, to imply that one should fully affirm unreason as a simple alternative to colonial reason; it is rather to claim that the reason– unreason opposition is itself rooted in a colonial mentality that supports it and narrows the range of what is culturally validated. In a similar vein, Neil Altman (2000, p. 591) commented, “When Freud the ego psychologist said, ‘Where id was, there ego shall be,’ he defined the goals of psychoanalysis in terms reminiscent of the colonial mentality. In this sense, the structure of racism is built into structural psychoanalytic theory, particularly in its ego-psychological form”. This claim is itself resonant of the critique of ego psychology mentioned earlier. The argument runs that because this form of psychoanalysis assumes reason to be superior to unreason, its concurrent assumption that unreason is characteristic of “primitives” means that it is promoting a colonizing process (reason trumping unreason; civilized displacing primitive) that is embedded in a racist paradigm. As an instructive aside, it is perhaps worth noting that ego psychology itself has a complex set of origins, one of which regularly gets lost when its notions of adaptation are pronounced solely conformist and colonialist. The occlusion here is of the personal history of most of the postSecond World War American ego psychologists as migrants or refugees from Nazi Europe. Their concerns were indeed to find creative ways to adapt to a new society; in addition, they were exercised by the explosion of irrationality that had overwhelmed their lost homelands, and their impulse to find ways to fend this off and protect future societies from its recurrence was perhaps understandable.