

A Real Context News

SPECIAL REPORT:

**Coronavirus Exposes U.S. As Unprepared for
Biowarfare & Bioterrorism, Highlighting
Traditional U.S. Weakness in Unconventional,
Asymmetric Warfare**

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TABLE OF CONTENTS

Introduction-	4
I.) A Brief, Non-Comprehensive Survey of Bioweapons, Biowarfare, and Bioterrorism History-	6
II.) America's History of Failure in Unconventional and Asymmetric Warfare-	14
III.) Understanding Our Failure Against Nontraditional Threats and How That Relates to the COVID-19 Pandemic-	19
IV.) The World Fails on Coronavirus, Led by America-	26
V.) A Far More Worrisome Future-	32
VI.) The Harsh Truths Coronavirus Has Exposed-	37
VII.) Epilogue: Coronavirus and History, Russia and Italy, the War for Reality, and the Nexus of It All-	45
About the Author-	56

Bernard Lowe: We retired the two hosts in question. You taught me how to make them, but not how hard it is to turn them off.

Dr. Robert Ford: You can't play god without being acquainted with the devil. There's something else bothering you, Bernard. I know how that head of yours works.

Lowe: The photograph alone couldn't have caused that level of damage to Abernathy, not without some other, ah, outside interference.

Ford: You think it's sabotage? You imagine someone's been diddling with our creations?

Lowe: It's the simplest solution.

Ford: Ah, Mr. Ockam's razor. The problem, Bernard, is that what you and I do is...so complicated. We practice witchcraft. We speak the right words. Then we create life itself...out of chaos. William of Ockam was a 13th century monk. He can't help us now, Bernard. He would have us burned at the stake.

—Westworld, "Chestnut," Season 1, Episode 2 by Jonathan Nolan and Lisa Joy (2016)



A frustrated health worker, Coco Tang, in the normally bustling Times Square, Manhattan, New York City, one night late in April (Photo: Coco Tang).

As the world witnesses the terrifying spiraling effects of the gaping void in competent early-intervention leadership in what looks to potentially and likely be [the worst global pandemic since the misnamed 1918 “Spanish” flu](#) killed as many as 100 million people (up to six percent of the world’s population at the time), perhaps the biggest fear we should harbor has little to do with actual coronavirus.

Part of why this virus and its disease is so terrifying is that [it is new](#) and [confounding](#), with varied effects. It might roughly be thought of as a [megaflu/superpneumonia-like whole body virus](#), but [even that description](#) does [not do justice to](#) the novel (i.e., new) coronavirus, also known as [SARS-CoV-2](#), about which [there is quite a lot \(so much\)](#) we [do not know](#) and for [which there is](#) currently no vaccine and against which no [vetted medicine](#) has yet [proven in rigorous testing to be effective](#), nor [even safe to use](#) (remdesivir, the antiviral drug seems to speed recovery from the virus and has just been given a special exception by the U.S. Food and Drug Administration [FDA] [for emergency use](#), still has not been properly tested, has not been formally approved by the FDA, and may damage the liver). Even with a viable vaccine in the future, this is a rapidly [branching, evolving, and mutating virus](#), and the coronavirus family of viruses has proven exceptionally difficult for vaccines, with the FDA never having approved an effective human-use vaccine for any type of coronavirus. In short, [there is no guarantee](#) that such an initial vaccine or any vaccine would provide mass protection anywhere near the degree to which we would hope.

Yet just imagine that the current disease [rapidly spreading](#) was actually far worse and far deadlier than [COVID-19](#), the [sickness](#) brought about by coronavirus and now creating [so many fatal complications](#) for [so many people](#) and hospitalizing [so many others](#) all around the world.

Such a mental exercise would hardly be just an act of imaginative fiction: Richard Preston—author of the famous 1990s [bestselling seminal book](#) *The Hot Zone* that awoke the national consciousness of America to the threat of emerging infectious diseases—and [other](#) numerous [experts](#) and [public figures](#) have raised the alarm about potential pandemics [for years](#), with Preston himself [just recently warning](#) that the next pandemic could easily be worse than this current coronavirus one.

Going back to our thought experiment, now imagine this even worse disease ravaging humanity was no act of nature, but a deliberate act of war or terrorism.

The horrible reality is there are, in fact, far worse things out there that mother nature has in store for us than this coronavirus, and, even scarier, as is always the case, is man's perversion of nature. As Iain Pears wrote in his [poetic novel](#) *The Dream of Scipio*: "...we are worse than beasts. Animals are constrained by their limitations and their lack of imagination. We are not."

And in this case of perverting nature, we are talking about the weaponization and modification of infectious diseases by humans—as servants of governments or terrorists—to kill people, *many* people, in no way discriminating between military and civilian, adult and child, strong or weak, healthy or sick. And in a world where such a threat exists, and where a natural pandemic has exposed glaring weaknesses that must be addressed, a dramatic change in policy is warranted.

We do not have to even try hard imagine such malintent: as one example, [the FBI has found](#) that American white supremacists want to pass on this very coronavirus deliberately as a bioweapon to target groups they do not like, [a clear form of terrorism](#). U.S. defense and intelligence officials are also [worried about a more organized potential effort](#) to weaponize coronavirus.

Yet the biological threats that have been and could be used as deliberate weapons against us are hardly limited to our currently omnipresent SARS-CoV-2 strain of coronavirus.

And so, as with understanding any issue, [a little history is in order](#), as [biowarfare and bioterrorism](#) does not begin or with the above example, nor, sadly, will it end with it.

I.) A Brief, Non-Comprehensive Survey of Bioweapons, Biowarfare, and Bioterrorism History

Like the medieval system before it, science is starting not to fit the world any more. Science has attained so much power that its practical limits begin to be apparent. Largely through science, billions of us live in one small world, densely packed and intercommunicating. But science cannot help us decide what to do with that world, or how to live. Science can make a nuclear reactor, but it cannot tell us not to build it. Science can make pesticide, but cannot tell us not to use it. And our world starts to seem polluted in fundamental ways—air, and water, and land—because of ungovernable science. This much is obvious to everyone.

—Dr. Ian Malcolm, in Michael Crichton's *Jurassic Park* (1990)

Premodern Biowarfare

The weaponization of disease [goes back](#) to the ancient world. The behavior of modern primitive tribes dabbing their arrows in decaying biological matter (animal or human), in part, indicates that [even before recorded history](#), humans were likely deliberately trying to infect other humans as a tactic.

The first recorded example is in the fourteenth century B.C.E. with the ancient Hittites—the scourge of ancient Egypt—sending sick animals (rams) to their enemies' lands the hopes of spreading sickness there.

Ancient Romans and Persians sometimes [poisoned the wells](#) of their enemies by dumping dead animals into the water, allowing sickness to spread.

The bubonic plague came to Europe because a Mongol-led army that had been suffering from plague in its siege in the mid-1340s of a Genoese-settlement in Crimea decided to turn their disadvantage to their advantage by catapulting their plague-riddled dead into the city. When some of the Genoese, fearing the mysterious disease that was afflicting their city under siege, fled to Italy, [they brought the plague with them](#) and the rest is history, [the history of the Black Death](#), which spread to all of Europe and had killed at least a third of the continent's population, some twenty-five million people at a minimum). The Mongol-led army using artillery to hurl those dead plague-ridden bodies at enemy forces in Crimea was “a landmark in the history of” biowarfare, a technique for which we have decent evidence of repetition a few subsequent times, including 1422 in by the Lithuanians in Bohemia and by the Russians against the Swedes in 1710 and 1718.

Another fairly unique historical example is closer to home. Besieged by Chief Pontiac's Native American warriors, it seems a British-led garrison defending Fort Pitt (now Pittsburgh, Pennsylvania) in 1763 gave blankets infested with [smallpox](#) as “gifts” to the Native Americans [with the intention of infecting them](#)

with the highly deadly disease for military purposes. British forces [apparently did something similar](#) in 1789 in Australia with that continent's Aborigines.

At the height of the U.S. Civil War, one rebel Southern agent (and future Kentucky governor)—Dr. Luke Blackburn, a medical doctor with serious expertise and experience in treating fellow fever—[hatched and set in motion](#) a plot to infect Union military positions, Northern cities, and even President Abraham Lincoln himself with the deadly disease by trying to pass on clothing and bedding of people who had suffered and perished from the disease. The plot was unsuccessful since, at the time, it was not known that people's fluids did not spread the fever and that mosquitos were the vehicle of transmission. It seems smallpox may also have been involved, and [that aspect might have killed one Union soldier](#).

Despite suspicions of other similar incidents, [evidence is mainly scant](#) for other deliberate uses of biological warfare from this period and the centuries just before and after, with suspicious incidents more often than not seeming to be natural in origin and not deliberate, despite accusations to the contrary.

Modern Biowarfare

Dr. Robert Ford: I don't think God rested on the seventh day... I think he reveled in his creation knowing that someday it would all be destroyed.

—*Westworld*, "Les Écorchés," Season 2, Episode 7 by Jonathan Nolan and Lisa Joy (2018)

[It is in the twentieth century](#) that [we see](#) the first [large, organized](#), national-level [government biowarfare programs](#). Scientific advances in the late nineteenth century gave humans far more knowledge and ability to combat human disease but also to manipulate potential bioagents, including for military use. Seeing what was to come, there were two international declarations coming out of Brussels in 1874 and 1899 banning the use of poison weapons on the battlefield, but there were no enforcing or inspections mechanisms.

Germany during [World War I](#) by far had the biggest biowarfare program, though not much was put successfully to use as their culmination was in small and ineffective covert attacks targeting mainly animal populations crucial to war efforts in enemy nations using glanders and anthrax (a bacterial agent that can infect both people and animals but [that is not contagious](#), i.e., able to spread person-to-person, so its spread is limited by where those using it as a weapon deploy it). France engaged in research but did not attempt to implement any of it.

The use of chemical weapons on the battlefield during World War I—[such as mustard gas, chlorine gas, and phosgene](#)—produced a revulsion that led to have their use banned on the battlefield, along with that of bioweapons, with the 1925 ratification of the [Geneva Protocol](#) for the Prohibition of the Use in War of Asphyxiating, Poisonous or Other Gases, and of Bacteriological Methods of Warfare, though their research and production were not banned. The Protocol also had no binding enforcement or verification provisions, but still, here, we had the first explicit ban on the use of bioweapons in war for signatories.

All the major powers in World War II would engage in bioweapons research programs, the Western Allies, in particular, investing energy into anthrax research and production. These programs often focused more on targeting beasts of burden and livestock, which were still so crucial to both the transportation and feeding of armies. The efforts were not a top priority, and a joint U.S.-UK-Canadian anthrax program was never finished. Despite concerns of a German bioweapons program, it seems the Nazi regime never prioritized such weapons.

It was Imperial Japan's government that, [by far](#), had [the most extensive program](#) during the war, led by Imperial Army Units 731 and 100 and one that ran for years, staffed by thousands of people in twenty-six centers and performing live experiments on prisoners that killed thousands of them, testing twenty-five different bioagents to see the effects of diseases on both prisoners and even, without their knowledge, Chinese civilians. Up to 600 prisoners were killed per year in bioagent testing at just one of these facilities. Outside of the biowarfare facilities, the Japanese Imperial Army dumped cholera and typhus into over 1,000 wells in Chinese villages to study the effects of the diseases. Japanese planes dropped plague-carrying fleas onto Chinese cities or had agents spread the same to Chinese rice fields and roads. The effects were so devastating that plague outbreaks were still killing tens of thousands of Chinese several years after World War II had ended. The Japanese also used bioagents against Soviet troops, but available information on the effects of these attacks are inconclusive and these attempts may have been ineffective. At the very end of the war, [Japan was exploring a plan](#) to spread plague into California using submarines and Kamikaze pilots, but the war ended before the plan's start date of September 22, 1945. One major member of the program even published scientific articles on his "research" in respectable journals and just referred to the human victims as "monkeys" to hide the atrocities. While the Soviets convicted some Japanese biowarfare program personnel of war crimes, the U.S. offered amnesty and freedom to all the relevant staff under their jurisdiction in exchange for the data on their experiments.

This brings us to the U.S. program, which became much more robust after World War II, though its main beginnings were at Fort Detrick, Maryland, in 1943. Activity increased in response to the Korean War and grew rapidly over the next few decades, becoming quite robust, producing many tons of bioagents and weapons systems to deliver them. This reflected the Cold War-era shift from bioweapons being conceived of more as tools of sabotage to weapons of mass destruction (WMD). In particular, the U.S. Air Force would have some of its aircraft equipped with highly sophisticated aerosol delivery systems such that a single B-52 bomber attack run could spread a biological agent over some 10,000 square miles while other systems for fighter-bomber aircraft could disperse bioweapons over 25,000-50,000 square miles in a single run. Besides lethal bioagents, incapacitating and anti-crop agents were also major priorities. Production capacity at just one major facility—the Pine Bluff Arsenal—would be 650 tons of bacterial agent a month, though that level of production [never occurred](#).

Though the U.S. program worked on a wide variety of bioagent research and weaponization, it seems to have focused more on bacterial agents. In the 1950s and 1960s, mass tests were conducted on unsuspecting American civilian populations, and while the intention was to use harmless agents, sometimes complications produced casualties. One of the largest examples of this involved the U.S. Navy [dispensing into the air off the coast of San Francisco](#) enormous quantities of what it thought was a harmless bacteria—*Serratia marcescens*—over the course of nearly a [week](#) in September 1950. The idea was to see the degree to how an enemy bioweapon might disperse and be spread by releasing it into the air off the coast of a major U.S. city. The bacteria spread with and into San Francisco's famous

fog and saturated the whole metro area, exposing some 800,000 people heavily to the bacteria unbeknownst to them. At least eleven people were hospitalized with major urinary tract infections and another man, recovering from prostate surgery, died from heart complications when the bacteria infected his heart valves. The public would not learn of this test until 1976. Another major test involved the New York City subway system in 1966. These were only two of the largest out of hundreds of [similar secret U.S. tests](#) carried out on domestic public populations without their consent in the 1950s and 1960s.

Alarmed by the real possibility of biowarfare and the relative ease with which non-superpowers could develop and engage in it, American President Richard Nixon halted the U.S. offensive bioweapons program in 1969 and had the U.S. sign the Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on their Destruction (BTWC or BWC) [in 1972](#). The Convention banned the use of biological and chemical weapons *and* bioweapons research. Signatories also committed to destroying their existing bioweapons stockpiles and were prohibited from researching offensive dispersal technologies, though there were no enforced verification or control mechanisms. Over 100 other nations initially signed along with the U.S., including the Soviet Union, and today, almost every nation in the world is a signatory.

But even as the Soviet Union signed the treaty, it was secretly ramping up its own biowarfare program into overdrive. The Soviets had had an offensive biowarfare program going back to the 1920s, which greatly expanded in the 1930s and may have approached the Japanese program in scale, but it seems Soviet leader Joseph Stalin's purges disrupted it. There is a small number of unverified claims of Soviet use of bioweapons in World War II as well as similar theories that Soviet-backed partisan guerrillas that used bioagents against occupying Germans obtained their bioweapons from the Soviets. Additionally, it seems some Soviet agents spread typhus-carrying lice in a German-occupied Ukrainian town. These operations killed dozens of Germans, but, still, in general and certainly compared to the Japanese, Soviet use of biological weapons during the war seems extremely rare and of minimal impact.

The USSR took biowarfare experts from Japan (like the U.S.) and industrial equipment from Germany as booty from the Second World War to help advance their program. As the Korean War approached and unfolded, Stalin worried that the increasing U.S. bioweapons program would be a real threat to the Soviets, and they continued to lag behind the U.S. likely until the 1970s. In early post-Cold War years, the Soviets developed weapons programs targeting crop and livestock and even developed sophisticated assassination methods with bioagents. There was even a plan to assassinate Yugoslavia's leader Josip Broz Tito using plague, but Stalin died before the plot was carried out. During this period, fear of the U.S. bioweapons program motivated the Soviets to create a robust system to help spot and stop outbreaks of infectious diseases.

Still, in part because of its subscribing to incorrect biological scientific theories and a stifling bureaucracy, not much seemed to have progressed with the Soviet biowarfare program in the decades after World War II. Soviet leaders, aware they were lagging behind the U.S., finally deferred to scientific experts (with correct, Western scientific theories backing their thinking) and decided to launch a major new biowarfare program, Biopreparat, that would take off just as the U.S. was winding its program down. Thus, beginning in the 1970s, Biopreparat became the largest, most advanced biowarfare program in the history of the world, employing up to 60,000 people at its height; the civilian side of the program alone [would end up having](#) "10 research and development institutes, 14 production and

mobilization plants, and 8 special weapons and facility design units,” and, combined with its military facilities, Biopreparat was capable of producing several thousand tons of biological agents per year. The program developed technology to have plague, anthrax, and [smallpox](#) placed in intercontinental ballistic missiles (ICBSMs)—with smallpox, maintaining a constantly refreshed egg-incubated stockpile of twenty tons—keeping some weapons loaded with agents and ready to be deployed or launched, and had the capacity to produce 1,800 tons of anthrax annually. Overall, Biopreparat worked with about fifty different bioagents, including the highly deadly Ebola-like Marburg virus.

Perhaps most disturbingly, the Soviet biowarfare program even [engaged in genetic engineering](#) to create new strains of existing diseases that would be stronger and resist known treatment—man-made super-strains of anthrax, plague, tularemia, smallpox, and others—as well as new agents altogether, combining some of the worst aspects of multiple diseases; by 1991, the program was researching adding genes from Venezuelan equine encephalitis, Ebola, and Marburg into smallpox.

The highly secretive Soviet Biopreparat program was unknown to U.S. intelligence until a member of the program defected to the West in 1989, two others following in 1992, the third being [the second-in-command of Biopreparat](#), who had become terrified of what his program could unleash on the world.

After these revelations, Russia (the Soviet Union was now in the dustbin of history) admitted it had carried out a program in violation of the 1972 BWC treaty and President Boris Yeltsin pledged to end the program, but his pledge was quite controversial within Russian power circles and he faced stiff opposition. Just a few years later, [Russia was backing off some its admissions](#), and after Vladimir Putin ascended to the Russian presidency in 1999, he changed the official policy of Russia to one that actively and specifically denied that the Soviet Union or Russia has ever had an offensive biowarfare program.

Russia, then, [simply has not come clean](#) on its biowarfare program. Putin himself even publicly called for [developing “genetic” weapons](#) in 2012, and, since then, [there has been a frenzy of construction activity](#) at over two dozen old biowarfare program sites, which still remain as secretive and sealed-off as they were during Soviet times. To this day, little is known about what became of the massive Biopreparat program or its enormous stockpiles. Even in 2016, the Obama Administration was noting that Russia still had not come clean about what it had done with its biological stockpiles and delivery systems, and it is hard to believe that Russia is not violating the 1972 BWC treaty even today. Furthermore, with [serious security issues](#) at [Russian installations](#) and with the immediate 1990s in Russia being something of an insanely chaotic, [corrupt](#) Wild West-like environment where it would hardly have been unthinkable that money and bioagents changed hands, we have no way of knowing [which struggling scientists](#) might [have smuggled](#) bioagents or their designs [to which buyers](#), let alone where elements of Russia’s biological weapons stockpile are today.

In fact, some of the Soviet Union’s smallpox cache seems to have [somehow gotten lost and made its way to North Korea](#) during the tumultuous time of the USSR’s final collapse. And a U.S. Defense Intelligence Agency report from 1994 stated that in the late 1980s or early 1990, the USSR or Russia [had supplied North Korea with smallpox](#), too, which may or not be the same as the stocks of which Russia apparently lost track. But that rogue nation would also have had its own stocks (though likely less potent) as part of its suspected longstanding biowarfare program, decades old but one about which [few concrete details are known](#) due to the secretive and sealed-off nature of the regime. Despite this lack of information, many experts contend North Korea’s biowarfare program is [a substantial](#) and advanced one, and it seems the government of the country’s leader, Kim Jong-Un (if he is still leading, or even

alive, amid his current disappearance) is trying to expand its program and bioweapons research and production capabilities. One North Korean soldier who defected a few years ago tested positive for anthrax antibodies, suggesting (though not proving) the possibility anthrax is an active part of its arsenal. North Korea's military is thought to be vaccinated for both smallpox and anthrax, making both those potential bioweapons attractive to them. And our own troops stationed in South Korea (and in general) are, overall, underequipped and unprepared for a biowarfare attack. Experts believe the government is more likely to use bioweapons than nuclear ones and, the volatile, desperate, risky, unconventional, and sometimes unpredictable nature of the North Korean regime mean its bioweapons program may be one of the world's programs that poses the largest threat, not least because a desperate and cash-strapped North Korean government could be willing to sell parts of this program and bioweapons expertise in general to other rogue regimes or non-state terrorist groups (it has supported terrorism across the world in the past), as it has already done with its chemical and nuclear programs and related expertise for Syria, which is also known to have a bioweapons program.

As for other countries, a number had programs rise and fall during the Cold War, and other have clear capabilities of having or jumpstarting a program even if no evidence exists that they current do have a program. Others still have programs today: Israel, for example, has long had a bioweapons program, but very few details are known about its current status. China is thought to also have a program, but likely a small one and practically nothing is known about it, with experts emphasizing China's dual-use capabilities more than actually any robust current program. Iran is in a similar category.

It is notable that Iraq had a robust program for a number of years not too long ago under Saddam Hussein, one about which we know a lot and that really kicked into high developmental gear from the middle of the Iran-Iraq War until the Gulf War and subsequent demands and inspections from the powers who defeated Saddam's government and severely disrupted his program at its peak. At that peak, the program was in its early stages of being operational, but it does not seem the regime ever used its bioweapons. The earlier DIA assessment from 1994 that concluded Russia had supplied North Korea with smallpox concluded Russia had also supplied Iraq with the virus around the same time, but Iraq likely also had its own stocks and there is evidence supporting the idea it was weaponizing smallpox, perhaps using camelpox research as a cover. Until the mid-1990s, even under the scrutiny of international inspections, the regime was still trying to salvage its program, but after renewed and intensified international actions, Hussein's government in 1996 may have largely abandoned serious efforts to reconstitute its biowarfare program. The post-Saddam era has thankfully seen Iraqi governments that have abandoned all WMD pursuits.

Bioterrorism

I'll tell you the problem with engineers and scientists. Scientists have an elaborate line of bullshit about how they are seeking to know the truth about nature. Which is true, but that's not what drives them. Nobody is driven by abstractions like "seeking truth."

Scientists are actually preoccupied with accomplishment. So they are focused on whether they can do something. They never stop to ask if they should do something. They conveniently define such considerations as pointless. If they don't do it, someone else will. Discovery, they believe, is inevitable. So they just try to do it first. That's the game in science. Even pure scientific discovery is an aggressive, penetrative act. It takes big equipment, and it literally changes the world afterward. Particle accelerators scar the land, and leave radioactive byproducts. Astronauts leave trash on the moon. There is always some proof that scientists were there, making their discoveries. Discovery is always a rape of the natural world. Always.

The scientists want it that way. They have to stick their instruments in. They have to leave their mark. They can't just watch. They can't just appreciate. They can't just fit into the natural order. They have to make something unnatural happen. That is the scientist's job, and now we have whole societies that try to be scientific.

—Dr. Ian Malcolm, in Michael Crichton's *Jurassic Park* (1990)

Besides states, there are, of course, the terrorists seeking to develop and use these weapons.

Besides the occasional partisans/guerillas who, as mentioned, used bioweapons against occupying German troops during World War II, there are, thankfully, only a few major examples of bioterrorism in general throughout history. In the modern era, there is the strange case of a religious cult in America deliberately poisoning restaurant salad bars with *Salmonella* in Oregon in 1984, sickening hundreds of people, dozens of them seriously. While Japan's Aum Shinrikyo cult is famous for its sarin gas attack on the Tokyo subway in 1995, it was also planning to carry out biological attacks before those plots were discovered and foiled.

Just after the September 11th, 2001 al-Qaeda attacks in the U.S., there was the strange incident of the anthrax mail attacks that infected twenty-two people and killed five. The case was quite murky and the best available explanation is that the attacks seems to have been an example of domestic terrorism by particular a government scientist who was an expert on, and worked with, anthrax, one who committed suicide and whose possible motives have not been definitively determined by investigators but that most likely would seem to have amounted to creating a false flag attack to raise awareness about bioterrorism and boost funding for biodefense. Even so, the evidence is far from conclusive and some questions remains as to the identity of the terrorist(s), let alone any motives.

Al-Qaeda itself harbored serious ambitions for developing bioweapons capabilities, in particular one major plot in the years before 9/11 focusing on anthrax to carry out a large-scale attack on U.S. soil run by the organization's second-in-command (and still current leader), the surgeon Ayman al-Zawahiri. In the months prior to the 9/11 attacks, multiple al-Qaeda operatives were looking into crop-dusting airplanes, a tool that would make an exceptional delivery mechanism for a bioagent. One of these operatives was Mohammad Atta, a 9/11 ringleader and a successful hijacker on 9/11, who was trying to get a loan to buy a crop duster in Florida but was rejected. Another was Zacarias Moussaoui, caught before 9/11 and later convicted in court on 9/11 related terrorism charges, thought to maybe be designated as a hijacker (possibly of another plane that was supposed to hit the White House) but also

perhaps, instead, to have been tasked with carrying out other attacks after 9/11. An associate of Moussaoui's who entered the U.S. with him was detained in possession of biology textbooks while Moussaoui had in his possession crop-dusting aircraft manuals.

After the 9/11 attacks, U.S. forces in Afghanistan [would destroy](#) what U.S. intelligence officials said [was an under-construction facility to produce anthrax](#) in Kandahar, and anthrax powder was found in Zawahiri's house in the country. [Zawahiri had even recruited](#) a Pakistani government scientist to [work on advancing al-Qaeda's bioweapons program](#) at that Kandahar lab. Extremist nuclear scientists in Pakistan also formed an NGO (with a former head of [Pakistan's notoriously-extremist-sympathizing ISI](#) intelligence service and a former head of Pakistan's Khushab nuclear reactor on its board) that was a front for supporting terrorists, including al-Qaeda and, specifically, bioterrorism plans were found in the organization's office in Kabul shortly after 9/11. Al-Qaeda also had a cell in Saudi Arabia that was planning biological attacks.

Abu Musab al-Zarqawi's al-Qaeda affiliate, al-Qaeda in Iraq/Mesopotamia—which would later, during the Iraq War, evolve into ISIS—was even trying to [develop, train with](#), and use bioweapons before the 2003 U.S. invasion of Iraq.

More recently, in 2014, a laptop that belonged to an ISIS operative with an academic background in science was apparently recovered from an ISIS safehouse. Files on the computer showed the group was putting energy into looking at developing bioweapons and carrying out bioterrorist attacks, with [specific documents outlining](#) techniques for testing agents and carrying out attacks in public areas, directing that biological agents be disseminated into the air using air conditioning systems, and explaining how to weaponize plague. There was also discussion of theological justifications for biological attacks and of the advantages of biological weapons being cheap to create and able to kill large numbers of people. While its "caliphate" was at its height, [ISIS even established a lab in Mosul for chemical and biological weapons research](#) and development that employed a team of scientific experts dedicated to the cause.

Additionally, Kenyan police stopped [a anthrax plot with big ambitions in 2016](#) concocted by an ISIS-linked terror group. And in 2018, a Lebanese citizen was arrested by anti-terrorism police in Italy for [plotting a terrorist attack](#) that [would have included anthrax](#) he was seeking to obtain, taking ISIS for inspiration. Overall, [European officials worry](#) that ISIS attacks utilizing bioagents are being planned for European targets and could be executed soon, perhaps even using drones.

Having looked at the unconventional bioweapons ambitions arrayed against us, it is now time to look at America's sad overall history with unconventional threats to get a sense of how our performance can inform our response to current and future unconventional threats, including from pandemics and bioweapons.

II.) America's History of Failure in Unconventional and Asymmetric Warfare

Not bad for a little furball, there's only one left.

—Gen. Han Solo to Princess Leia Organa after a tiny Ewok lured three Imperial Scout Troopers away from guarding the Death Star II's shield generator's rear entrance on Endor's moon, in George Lucas's *Star Wars: Episode VI: Return of the Jedi* (1983)

Ironically, as Historian Max Boot [noted](#), “today, we're used to having American soldiers be the forces of the government. And, of course, in our revolution, we were the insurgents and the British were the role of the counterinsurgents, and, in fact, many of the strategies which the American rebels used against the British are similar in many ways to the strategies now being used against us around the world.” There's a reason for that current state of affairs, and it's about our unmatched power.

America's military might—[by far the greatest on earth](#)—is both a blessing and a curse.

It is a blessing in that nobody can take us on militarily directly, nor can any plausible coalition of nations, especially when factoring in our massive alliance system, an “[empire of trust](#),” this [combination of hard and soft power](#) is unlike anything in history [since ancient Rome](#).

Yet this very power means that smart enemies do not even try to take us on in a traditional military sense; *conventional, symmetric* responses are, essentially, suicidal for our enemies, who, instead, opt for [unconventional](#) and [asymmetric](#) means. [In the words of Gen. H.R. McMaster](#), “There are basically two ways to fight the US military: asymmetrically and stupid.” Thus, mostly all our recent conflicts have been *a.)* primarily unconventional in that, for the bulk of the fighting, we are operating against forces that are *not* regular state military units in standard-range uniforms behaving within more traditional norms of warfare and *b.)* primarily asymmetric in that this unconventional organization, equipment, tactics, and strategy on the part of our adversaries are products of those adversaries *accepting the power imbalance* between our stronger forces and their weaker ones and are designed to address this imbalance

And when facing unconventional and asymmetric warfare in recent decades, [America's track record](#) is [actually pretty poor](#). Without a doubt, biowarfare falls under the category of unconventional since it involves illegal, rare, and atypically deployed weapons and is also asymmetric because few things besides bioweapons can reduce the advantages of a more powerful enemy with such relatively low cost and easy access.

Throughout our history, it was [basically in campaigns](#) marked by [sustained brutality](#)—including [massive forced population transfers](#) and [the killing of civilians](#)—that [American colonists](#) and later the [U.S. Army](#)

defeated Native Americans over several centuries, who themselves often employed what we would call unconventional and asymmetric tactics, as well as brutal ones.

Ironically considering our later history, we used unconventional, asymmetric tactics to great success against the British in our Revolution.

But it was in massive failure that U.S. Army troops defending both civil rights for freed slaves and legitimate biracial state governments withdrew from the Reconstructed South (the final troops leaving in 1877) as white supremacist terrorist campaigns destroyed every one of those governments in the postwar South. The Ku Klux Klan and others carried on an insurgency lasting years of unconventional, asymmetric warfare and terrorism against U.S. forces, local troops, state governments, the rule of law itself, and those citizens who worked with and supported the new order, them whether white or black (and in this sense, their campaigns were hardly different from the terrorist insurgencies in Vietnam, Iraq, or Afghanistan). The more just society being built in relatively modern terms was destroyed, and the ensuing Jim Crow reign of terror of the Klan, the noose, and corrupted local judicial systems in the American South and sometimes beyond would not begin to be seriously dismantled until the 1960. Thus, with the Civil War, the U.S. won the war in four years but lost the peace for about a century after.

With the massive unconventional and asymmetric insurrection in the Philippines, which the U.S. occupied in 1898 in the Spanish-American War, it was back to brutality and murder to achieve victory. That is not to say that, to its credit, the U.S. did not start with a softer hand there, but that proved to be ineffective at stopping the Filipino rebels, and it was only when harsher and more robust measures were taken that the insurgents were truly defeated.

While American forces in the Vietnam war won all the actual big battles against the conventional North Vietnamese Army, the unconventional Viet Cong above all else eventually broke America's will to keep fighting in Vietnam with an unconventional, asymmetric approach. Our collective withdrawal from South Vietnam and, eventually, Saigon was an ignominious disaster for U.S. interests in the region and those of our South Vietnamese allies. Leaving aside any debates on a "road not taken" and military tactical successes, the U.S. was, simply, defeated. America won the battles, yet lost the war.

In Lebanon and Somalia, American leaders rapidly drew down their involvement after a series of high-profile Hezbollah bombings in Beirut in 1983 and the notorious "Black Hawk Down" incident in Mogadishu in 1993 despite both missions having substantial international support. Key humanitarian aims of the mission in Somalia were actually fairly well-accomplished and saved hundreds of thousands of lives before the withdrawal, and even in Lebanon with our problematic mission there, significant humanitarian achievements still occurred.

In between the unconventional, asymmetric challenges in Lebanon and Somalia, our overwhelming triumph in the conventional 1991 Gulf War actually helped lead us to be overconfident and over-reliant when it came to our conventional military abilities (and, to a lesser extent, the same could be said of the two air campaigns in the Balkans), setting us up for even greater failures in ensuing decades. "Black Hawk Down" would be first buzzkill of our post-Gulf War high, just the first of many setbacks in the wars to come. And in the cases of both Lebanon and Somalia, terrorists—Hezbollah and al-Qaeda—took inspiration for future terrorist attacks from our withdrawals, with both Lebanon and Somalia devolving into prolonged periods of war that killed many people and terribly destabilized their respective regions.

As for al-Qaeda, its Osama bin Laden [had several basic goals](#) behind their asymmetric, unconventional 9/11 attacks that would come years later. They looked at the world relevant to them as being divided into two major camps: the “near enemy”—all the regimes ruling Muslim populations that were not run by Islamic principles as defined by al-Qaeda: the monarchs, dictators, and democracies from Saudi Arabia to Egypt to Indonesia—and the “far enemy”—foreign governments propping up the near enemy, especially the United States.

With 9/11, bin Laden wanted to recreate for America the Soviet defeat in Afghanistan. As he saw it, the Soviet invasion galvanized Muslims from around the world to fight off the atheist communist infidel invader, who got bogged down over years in a conflict that sapped its treasure and strength and led to the Soviet Union’s final collapse; with the invaders ousted from Afghanistan, an Islamic regimes in al-Qaeda’s mold—the Taliban—came to power.

Osama bin Laden’s dream with 9/11, then, was to bait the U.S. into one or more wars of attrition, rally Muslims from around the world to his banner to fight the occupying invader, force an American withdrawal after it expended so much blood and treasure, seethe U.S. sour on supporting allied governments in the Middle East in the aftermath, and pull its bases out as a result or as a result of additional conflict with and attacks from al-Qaeda, flushed with recruits after already beating the Americans in one war. In short, the endgame was to remove the presence and influence of the “far enemy”—namely America—in the Middle East and then topple the “near enemy” regimes there and elsewhere ruling over the Muslim world.

As we know, 9/11 helped bin Laden goad the U.S. into two such wars, not just in Afghanistan but also in Iraq, and while we withdrew from Iraq after seven-and-a-half years on terms far better than the U.S. withdrawal from Vietnam, extremists policies against their own people on the parts of both [the Syrian government](#) and our allied Iraqi government empowered the [unconventional](#) and [asymmetric](#) ISIS—Zarqawi’s al Qaeda in Iraq’s rebirth and successor—to create a “caliphate” that ate up large parts of territory in both countries, [forcing the U.S. reentry into Iraq](#) and intensifying involvement in Syria. While bin Laden expected us to invade Afghanistan, Iraq was something of a gift to him.

The Iraq War resulted in the removal of Saddam Hussein from power in Iraq, meaning Iran became our biggest enemy in the region. But while in the beginning this was due mainly to a process of elimination, shortly after, it would also be because [Iran grew considerably](#) in [power as a result](#) of our actions, eventually [playing dominant roles](#) in Iraq and Syria and having major influence in Yemen, too, in addition to having its longstanding leverage in Lebanon. [In short](#), Iran [was the main victor](#) of our Iraq War. But especially considering how dynamics played out as war raged in Syria and up through today, Iran is hardly the only major U.S. foe to benefit from recent [U.S. missteps](#) and missed opportunities: the chief global U.S. antagonist, [Russia](#), is also [far stronger](#) in [the Middle East today](#) at [the expense of](#) the U.S. (not to mention [elsewhere](#) around [the globe](#)).

Ironically, [as I have noted](#), counterinsurgency (COIN) worked well in the Iraq War after the [negligent leadership](#) of [Secretary of Defense Donald Rumsfeld](#), and its gains held well until late 2013 in spite of a U.S. withdrawal that had been completed before the end of 2011. Much of this effort was overseen by Rumsfeld’s replacement, Sec. Robert Gates, and the man in uniform he tapped to execute the mission, Gen. David Petraeus. [But the earlier blunders of the U.S.](#) had pushed to the center stage of a frightened, increasingly sectarian Iraq one Nuri Kamal al-Maliki as Iraq’s prime minister, who fed off division and increased it at the same time, playing somewhat nice while U.S. troops were still in-country but

becoming increasingly unshackled as time went on and especially after the U.S. pullout. Rather than the Obama Administration's withdrawal, then, it was Maliki's oppressive governing style that wiped out U.S. security gains and soon had ISIS governing a "caliphate" that included large portions of Iraqi territory right up to the gates of Baghdad by mid-2014, a situation demanding U.S. entry into the conflict to prevent a terrible situation from becoming far worse and far more genocidal, in spite of the Obama Administration's reluctance to reinsert U.S. forces into Iraq after withdrawing them just a few years earlier.

The same Obama Administration, reluctant to appear political in an election year, responded abysmally in 2016 to Russia's game-changing asymmetric unconventional election interference that relied on propaganda, disinformation, hacking, and social media. In short, we lost what I dubbed the (First) Russo-American Cyberwar, and it is worth noting (and I have noted) that, from the media to the government to the public, we are making many of the same mistakes we did in the 2016 election cycle in the 2020 election cycle, to some degree even willfully. Russia is beating us at unconventional asymmetric cyberwarfare with advanced, pioneering approaches; the Second Russo-American Cyberwar is already underway and America is already losing.

And while the Obama Administration took a relatively large degree of care to avoid alienating local populations and inflicting civilian casualties while staying true to allies in its fight against ISIS, the Trump Administration has pretty much taken an anything-but approach—killing far more civilians—even as it relaxed its assault against ISIS when the group was close to losing all its territory in Syria and Iraq, allowing for ISIS to make something of a comeback. Even worse, in October, 2019, the Trump Administration abandoned our true allies there—the Kurds and others fighting alongside and inside the Syrian Democratic Forces (S.D.F.)—who had worked together for years against both ISIS and Syrian dictator Bashar al-Assad's regime. This betrayal was carried out so suddenly, and in such a way, that it dramatically undermined our ability to fight unconventional asymmetric warfare in the region, an ability that is so heavily dependent on trust and partnering with non-state actors on the ground who have longstanding, intimate relationships with the locals as members of their communities and know the landscape as only locals can. This withdrawal was also done in a way that undermined our entire regional position, ceding much territory and influence to actors working against many of our interests: to an "ally" we could not trust (Turkey, seeking to pulverize both Kurdish forces that had fought alongside us and Kurdish autonomy as well as engage in "demographic engineering" against the Kurds) and our main rivals in the region (Russia and Iran, Assad's top allies). This withdrawal minimized what was already a minimal deployment (far from a costly or expensive one, especially relative to so many recent deployments) that was giving us an amazing payoff for the small amount of resources allocated.

As for the Afghanistan war, that "other" war that bin Laden's 9/11 prodded us into, it has been a mess for nearly its entirety and still is, waxing and waning to one degree or another in its state of messiness, Afghanistan having been at war for decades before the U.S. toppled the Taliban. Here, too, unconventional and asymmetric tactics wore down American will after American leadership's initial projections of swift "victory" set up inevitable cynicism and disappointment, with Alec Worsnop highlighting for the Modern War Institute at West Point (MWI) the Taliban's particular skill at asymmetry. Though the Obama Administration tapped Gen. Petraeus to recreate his successes in Iraq in Afghanistan with another surge, the far lower degree of national development there combined with U.S. political leadership not being committed to the resourcing required to achieve our stated aims—let alone try to sell Americans on a longer-term commitment—meant that, with that Petraeus surge or

without it, that war would remain what it has been for years: [an exercise in futility](#) apart from preventing an unstable, violent status quo from becoming far worse. Another surge under the Trump Administration [also failed to significantly alter](#) the overall negative dynamics on the ground for the better. However President Trump describes his intent to pull out U.S. forces now, it is hard to objectively consider American disengagement after so many years [as anything but a victory to the Taliban](#) unless the Taliban suddenly becomes the opposite of what it has consistently been for the entirety of the conflict, which is an extremist religious group that resorts to [extreme methods](#) to achieve its aims, relying [almost wholly](#) on [violence](#) and [terror](#) to “govern” and one that [cannot be trusted](#) to uphold agreements of any sort, let alone [the type the Trump Administration is trying to reach](#) with it.

There has not anytime recently been and will not be the political will for a significantly better-resourced, medium-to-longer-term international effort in Afghanistan, the best approach to give that country its best chance to transition to overall to higher levels of stability and one that [I advocated for in writing in 2009](#) as a graduate student. But that hardly means the failures in Afghanistan are all on the political-leadership side and that the military does not also shoulder significant blame, as the top U.S. commander in Afghanistan from 2003-2005, Gen. David Barno, [wrote in 2019](#). Still, senior military leaders seem to have been more [careful with their use of language](#) compared to political leaders, and it was the political leadership that either [set expectations and parameters that were unrealistic](#) or simply avoided engaging with the public on the war, hoping more to avoid having the war cause them political damage than have any seriously honest national public dialogue about Afghanistan.

What we have been engaging in there in an overall sense—open-ended long-term stalemate that prevents a worst-case scenario—can be a hard sell as the best option (not that it has been generally honestly sold as that), but that does not necessarily make it bad policy. To quote Gen. Petraeus in [a recent piece](#) (one he penned with security-policy hand Vance Serchuk): “This strategy has been costly and unsatisfying—but also reasonably successful.”

Yet, just as was the case in Syria, President Trump seems ready to just walk away in a way that leaves America, along with our local allies, exposed and weakened.

III.) Understanding Our Failure Against Nontraditional Threats and How That Relates to the COVID-19 Pandemic

There's an old saying in Tennessee—I know it's in Texas, probably in Tennessee—that says, fool me once, shame on—shame on you. Fool me—you can't get fooled again.

—President George W. Bush, [September 17, 2002](#)

Patterns and Themes of Failure

As Gen. Petraeus and Serchuk concluded in their piece on Afghanistan: “More broadly, history suggests that capitulation in the name of peace rarely succeeds in either curbing an adversary’s ambitions or moderating its behavior—at least not for long.” Far more often than not, this has been proven repeatedly by rapid U.S. disengagement in Lebanon, Somalia, and Syria, each of which preceded further disasters.

If one thinks of long-term American objectives in the Middle East, North Africa, and South Asia as they have stood over several decades now, the net results of our two massive wars there are massive setbacks right and left and up and down throughout those regions. To a large extent, we did exactly what bin Laden wanted us to do: while he may have not have gotten the full collapse of the U.S. and long-lasting caliphate of which he dreamed, he still [played us like a harp](#) and saw huge portions of his goals realized from our myopia, not just in the Muslim world but also in how our two 9/11-prodded wars changed America by [dividing Americans](#), draining national resources in a way that helped generate an economic near-collapse in 2008, and [weakening](#) our domestic [democratic politics](#) and [institutions](#). So perhaps, domestically, bin Laden’s plan is still a posthumous work-in-progress; we may very well make it out of these dark times with our system intact, but that is not guaranteed, and if we do not, 9/11 will surely be looked at as the catalyst for a chain of self-destructive events and trends that were accelerating well-before this current pandemic. And the dynamics behind many of those events and trends are tied directly or indirectly with our failure to address non-traditional threats successfully.

At the time of the peak of the “surge” COIN campaign that dramatically improved security conditions in Iraq, it might have been harder ([though hardly impossible](#)) to see [possible failure](#) and far harder to see an ISIS “caliphate” [peaking some seven years](#) later, but, conversely, at this peak of ISIS’s territorial gains, it is hard to look back at the surge and think that it ever had a chance to produce long-term success. Perhaps the sectarianism and violence unleashed [during Sec. Rumsfeld’s tenure](#), then, meant any [positive impact from Sec. Gates and Gen. Petraeus](#), no matter how right-headed and brilliant they were, was doomed not to be as transformative as we wished, and probably from the start, especially since those [Rumsfeldian](#) dynamics installed Maliki in Iraq before the surge and well before the time we withdrew, helping him stay in power even when his heavier worsened. Or, perhaps the surge era-effort

was not doomed; to his credit, Gen. Petraeus saw, [writing in late October 2013](#), that “this is a time for [American and Iraqi leaders of the surge] to work together to help Iraqi leaders take the initiative, especially in terms of reaching across the sectarian and ethnic divides that have widened in such a worrisome manner. It is not too late for such action, but time is running short.” He was all too right: time was running very short, as it was just matter of a few months until it would all come crashing down.

I included the discussion and points in the previous paragraph here to illustrate the larger point that such is often how the U.S. finds itself: fighting demons of its own making, never really getting away enough from those demons to have a fresh start, succeed, and reach its ideals, however genuine those ideals may be. If Sec. Gates and Gen. Petraeus were, in many ways, prisoners of the mistakes of the early years of the U.S. in Iraq and Sec. Rumsfeld’s legacy, then Obama and his team, as well as Iraq and Iraqis overall, were, in a similar sense, prisoners of the Bush Administration’s legacy. In this world we live in, the U.S. is hardly unique here except perhaps sometimes in matters of degree, as other nations, [whole peoples](#), even [ourselves as individuals](#) are often prisoners of our own past or those of our parents and ancestors. We fall prey to the demons of the past and, in doing so, create demons of our own, [ensnaring our very children](#), and [their children](#), and so on, [a generational, tragic spiral](#) of trauma. Indeed, trauma has [a nasty habit](#) of outliving its immediate effects (and exponentially so, at that). It literally embeds itself into our very beings, [down to our genes](#).

And our demons of failure with unconventional and asymmetric threats haunt us today and will for some time: the American government simply [does not seem to get](#) how to deal with the irregular and non-traditional. For MWI nonresident fellow Max Brooks, there is something of a cultural deficiency in America that pushes us in this direction; in [a mid-March interview](#) discussing the problems with our current coronavirus response, Brooks remarked that “American culture has always had strengths and weaknesses, and one of our weaknesses has always been putting our head in the sand. Not reacting to coronavirus—that’s just the latest one—but 9/11, Sputnik, Pearl Harbor ... Americans are always the worst at proactive response. That’s our weakness.”

So when confronted with such threats, the U.S. has failed and failed pretty miserably in a larger sense [since the 1960s](#). From the [terrorism of the Taliban to the cyberwarfare of Russia](#), there are certain common denominators present in these asymmetric, unconventional situations to which we are not properly adjusting, ensuing that we keep losing again and again and again, allowing our own strengths and divisions to be played to cripple democracy at home (Russia’s election interference in 2016) and sometimes seeing the unraveling of our own notable own successes (the rise of ISIS in Iraq in 2014 negating the 2007 surge) or even undoing them ourselves (missions having positive impact turning into rapid withdrawals in 1984 in Lebanon, 1994 in Somalia, and 2019 in Syria).

COVID-19’s Deadly Impact Magnified by Recent U.S. Failures Facing Unconventional, Asymmetric Crises

If this seems unrelated to coronavirus, think again.

That withdrawal of most of a tiny contingent of U.S. troops in northern Syria has not only led to a reinvigorated ISIS but also a massive humanitarian crisis. Millions of Syrians there are caught in what one [article’s headline](#) calls “the world’s worst game of Risk.” In fact, even though Syria is now getting far less attention in the media because of coronavirus and a general [ennui for Syria](#) among other factors,

the [current situation](#) in Syria is [the worst humanitarian crisis](#) of the [entire decade-long war](#), with more people being driven from their homes [than at any other time of the war](#).

The Idlib governorate on Turkey's border is the last major rebel stronghold in Syria and has some three million people living in it now, but half those are Syrians internally displaced from their homes (IDPs) because of the war. With the latest round of fighting in Idlib, some one million people have been recently displaced there, many not for the first time. To make matters even worse, the region is experiencing an unusually harsh winter and displaced children are [freezing to death](#) in the cold.

On top of war, a lack of supplies and [aid coming in](#), and harsh conditions, now these desperate people must face coronavirus, a threat well-represented by the title of a recent Refugees International briefing, "[A Crisis on Top of a Crisis: COVID-19 Looms over War-Ravaged Idlib](#)," which describes the situation there regarding coronavirus as being "like a tinderbox waiting for the match." The disease is spreading elsewhere in Syria and Turkey, surrounding Idlib, but conditions in northern Syria—with Syrian, Iranian, Russian, Kurdish, Turkish, S.D.F., and ISIS forces operating among other groups in a chaotic theater—mean tracking and treating the virus are themselves Herculean tasks. Reporting on the virus can be slow, and that is *if* authorities are cooperating and being transparent, which in Syria and [elsewhere in the region](#) is hardly a given; in other words, we really have no idea how bad coronavirus is spreading in the area. Furthermore, it is incredibly difficult getting aid into Idlib with all the fighting as the Syrian Civil War rages with the Assad regime's forces' [latest offensive](#) into Idlib, [supported by Russian and Iranian forces](#); attacks [against civilians](#) are [rampant](#). The Syrian government is even [blocking the transport](#) of medical supplies to where they are needed, finding a way to [weaponize the coronavirus](#) even as aid workers and local medical staff are flat-out warning that [they are not equipped](#) or prepared to deal with coronavirus, with medical equipment and supplies being [scarce in the area](#).

Even before this COVID-19 crisis, the local healthcare infrastructure had been decimated by the war, with some [80 hospitals taken out](#) of commission in Idlib alone. This has been [by design](#), as, [throughout the war](#), [Assad regime forces with Russian backing](#) have been [deliberately targeting](#) hospitals and [other key civilian infrastructure](#) related to food and water, [as has the Russian Air Force](#). Displaced civilians were already [extremely vulnerable](#) in Idlib, and now they face a pandemic with great uncertainty as to whether they will have the necessary aid to survive it alongside a host of other threats in a warzone ([you can help them here](#)). The virus will certainly make (and [already has made](#)) their already extremely difficult lives [significantly worse](#) even if it does not infect or kill them.

These civilians in Idlib are often fleeing the Syrian's government's offensive to a Turkish border that has been sealed off to them—Turkey, already hosting some 3.7 million refugees, refuses to take in any more—with masses of people trapped with nowhere to go, a situation ripe for a coronavirus outbreak as [they cannot practice social distancing](#) since they live in crowded tents (if they even have shelter), nor do they have the ability to practice good hygiene since they [lack proper amounts of soap](#) and easy access to water. Refugee camps there and [elsewhere in the Middle East](#) are [teeming with people](#) and [short on necessary supplies](#), meaning [they are potential disasters-in-the-making](#).

This conflict has only greatly intensified in Syria's north lately in the absence of a stabilizing U.S. presence after the recent U.S. withdrawal discussed earlier. It was because of that withdrawal that Turkey was able to carry out its destabilizing invasion of northern Syria, [an invasion](#) that itself [displaced hundreds of thousands of people](#). After its reckless invasion and [engaging directly against Assad's forces](#), Turkey—a NATO member state—has been furious that NATO is not supporting it as it takes

casualties from attacks from Syrian forces getting support from the Russian government. [To pressure NATO states](#), Turkey is actively encouraging thousands of refugees it is hosting [to migrate](#) to Greece and Europe, even transporting them to the no-man's land separating the Turkish and Greek borders—where [desperate refugees](#) caught [as pawns](#) have even clashed with Greek border guards—in a naked play to use these refugees as leverage against European NATO countries. Turkey's President Recep Tayyip Erdoğan has made his intent in this regard [explicit and clear](#) and does not even try to deny he is weaponizing the refugees for political purposes. If refugees in Turkey come down with COVID-19, this would be [a far more ominous context](#) for the dangerous game Turkey is playing with Europe. For now, with coronavirus spreading in Turkey and Greece and refugees in camps in Greece [coming down](#) with the virus, the Turkish government late in March [evacuated the makeshift camp](#) that had popped up for the refugees it had sent to the Greek border and quarantined the refugees for two weeks. Those being released from the quarantine [often end up sleeping in the streets](#), caught in limbo amid coronavirus, with Turkey indicating it will recklessly resend them to the closed Greek border once the pandemic subsides.

In Syria, Turkey, Greece, and all over the world, [aid operations](#) for forced to undergo massive, [disruptive adjustments](#) are [being cut back drastically](#) because of COVID-19, and with a field that was already spread thin amid [a record number](#) of [people being displaced globally](#), the vulnerable populations the aid field was servicing cannot afford to be deprioritized.

But in particular, in northern Syria, President Trump's Syrian withdrawal was the catalyst for the sad chain of events that has the situation there where it is now: far worse than it would have been otherwise and guaranteed to get even worse yet in the midst of a global pandemic. The difference this all will cause in the number of dead from COVID-19 and its spillover effects will likely be in the thousands as U.S. incompetence in the face of one unconventional, asymmetric threat amplifies the harm from another unconventional, asymmetric threat. Though the second is not man-made, the increase in the damage it will do is.

America's Own COVID-19 Failures Mirror Its Failures in Fighting Nontraditional Threats

The issues surrounding the conflicts in Vietnam, Lebanon, Somalia, Iraq, Afghanistan, and Syria were complicated and difficult to understand, and many Americans preferred moving on and forgetting. After all, most Americans could live their lives and not be affected by the nature of unconventional, asymmetric warfare in a distant land. But the unconventional, asymmetric threats posed by coronavirus, pandemics in general, biowarfare, and bioterrorism are not something from which Americans can conveniently shrink away: they are dangerous to us here at home all over the country, not just a small portion of volunteer military personnel deployed thousands of miles away or one city or several targeted in a particular al-Qaeda/ISIS-style "normal" terrorist attack. Thus, the approach that has created a pattern of failure for America regarding unconventional, asymmetric threats in the past is even more inappropriate, problematic, and unacceptable for our present pandemic and similar biothreats.

Whether in Vietnam, Iraq, or Afghanistan, our leaders early on projected a supreme level of confidence and a belief in total victory even as they understood little about the nature of the threats they faced and what would be required to actually come out on top. As these conflicts unfolded in their earlier phases,

the political leaders initiating and running our military involvement never communicated to the public how truly difficult, open-ended, and indefinite our missions could or would be. Because of these characterizations, proper resourcing was often a huge problem, especially given the tendencies to downplay the challenges we faced in these conflicts. Instead, what we were told was that [victory was usually just around the corner](#). Furthermore, by focusing on short-term accomplishments for the sake of trying to boost public opinion, they very accomplishments themselves were made shallower and more likely to depress public opinion over time since they were more likely to come undone. In the end, this meant that relatively short-term, technically successful increases in military deployments—ones leaders signaled ahead of time would be short-term and the goal of which was to improve security and stability enough for politics on-the-ground to move significantly in the right direction and not backslide—were always going to have a risk of history repeating itself just after or not long after the shorter-term surges; when these deployments' effects wore off (or, even worse, the deployment itself failed to have the desired effect), it would be time for another deployment, with new deployments increasing frustration for a public that had been told we were “winning” and, over time, damaging that public's willingness to support our military efforts as well as the Confidence of our local allies so crucial to the fight.

Tragically, that is what happened in both of the major wars al-Qaeda sucked America into, with the same man (Gen. Petraeus) leading roughly the same surge strategy in both countries—first in Iraq, then later in Afghanistan—but the eventual hoped-for political resolutions never coming from local actors, who, having seen America's inconsistency and mistakes up close, were more interested in sectarian and tribal agendas to bolster their positions than either allowing the U.S. to claim victory or making concessions necessary for multi-ethnic, religiously pluralistic territories to truly come together under one flag.

At the end of *Invisible Armies*, his seminal history on guerrilla warfare, Max Boot presents [a series of major lessons](#) from his study. [One is that](#) “most insurgencies are long-lasting; attempts to win a quick victory backfire”:

The fact that low-intensity conflict tends to be “long, arduous and protracted,” in the words of Sir Robert Thompson, can be a source of frustration for both sides, but attempts to short-circuit the process to achieve a quick victory usually backfire. The United States tried to do just that in the early years of the Vietnam and Iraq wars by using its conventional might to hunt down insurgents in a push for what John Paul Vann rightly decried as “fast, superficial results.” It was only when the United States gave up hopes of quick victory, ironically, that it started to get results by implementing the tried-and-true tenets of population-centric counterinsurgency. In Vietnam, it was already too late, but in Iraq the patient provision of security came just in time.

A particularly seductive version of the “quick win” strategy is to try to eliminate the insurgency's leadership. ...there are just...many examples where leaders were eliminated but the movement went on, sometimes stronger than ever—as both Hezbollah and Al Qaeda in Iraq did. High-level “decapitation” strategies work best when a movement is weak organizationally and focused around a cult of personality. Even then leadership targeting is most effective if integrated into a broader counterinsurgency effort designed to separate the insurgents from the population. If conducted in isolation, leadership raids are about as effective as mowing the lawn; the targeted organization can usually regenerate itself.

I have literally lost track of [how many times](#) the [number-two or number-whatever leader](#) of al-Qaeda or an affiliate or ISIS was proudly announced as killed by the U.S. (often from a drone strike), and I remember that political leaders and whichever-Administration spokespeople were usually quite eager to

broadcast this as some sort of major accomplishment or an indication that things were going well even when they clearly were not. The emphasis our government places on this tactic from a public-relations perspective when considering [its ineffectiveness](#) betrays that eagerness to present the public with quick fixes to complex problems that has so hampered our efforts in unconventional, asymmetric warfare.

Another lesson of Boot's is that "conventional tactics don't work against an unconventional threat":

Regular soldiers often assume that they will have no difficulty besting ragtag fighters who lack the firepower or discipline of a professional fighting force. Their mindset was summed up by General George Decker, U.S. Army chief of staff from 1960 to 1962, who said, "Any good soldier can handle guerrillas." The Vietnam War and countless other conflicts have disproven this bromide. Big-unit, firepower-intensive operations snare few guerrillas and alienate many civilians. To defeat insurgents, soldiers must take a different approach that focuses not on chasing insurgents but on securing the population. This is the difference between "search and destroy" and "clear and hold." The latter approach is hardly pacifistic. It too requires the application of violence and coercion but in carefully calibrated and intelligently targeted doses. As an Israeli general told me, "Better to fight terror with an M-16 than an F-16."

In this sense, too often we have favored the F-16, the metaphor for heavy firepower and advanced technology, including drones, missiles, and bombers, as a substitute for long-term policy, and, indeed, one of Boot's lessons is that "technology has been less important in guerrilla war than in conventional war," since

all guerrilla and terrorist tactics, from suicide bombing to hostage taking and roadside ambushes, are designed to negate the firepower advantage of conventional forces. In this type of war, technology counts for less than in conventional conflict. Even the possession of nuclear bombs, the ultimate weapon, has not prevented the Soviet Union and the United States from suffering ignominious defeat at guerrilla hands. To the extent that technology has mattered in low-insurgency conflicts, it has often been the nonshooting kind. As T. E. Lawrence famously said, "The printing press is the greatest weapon in the armory of the modern commander." A present-day rebel might substitute "the Internet" for "the printing press," but the essential insight remains valid.

In an interview, [Boot also notes](#) our amnesia with these types of conflicts, how

this is a recurring problem, that armies do not like fighting guerrilla wars. They regard it as being beneath them, because they don't regard guerrillas as being worthy enemies. Unfortunately, they keep getting forced into these guerrilla wars and what normally happens is they do learn how to fight after a period of trial and error, and after suffering costly defeats. But then as soon as they leave that war behind, they tend to forget what they've learned.

Former U.S. Army Lt. Col. Christopher Holshek—an old professor of mine in a class I took in Liberia, studying the United Nations peacekeeping mission there—perfectly summed up our failures in these conflicts [in an article for Foreign Policy](#):

The phase-four [post-conflict stabilization and reconstruction] fates of Operations Iraqi and Enduring Freedom [the Iraq and Afghanistan wars, respectively] were due more to the sins of omission than of commission. The U.S. government, in its haste to do in months what takes years, threw [billions](#) at hearts-and-minds [boondoggles](#) and into ministries yielding corruption, roads to nowhere, and teacher-less schools, among other counterproductive outcomes. The [vast waste](#) has led to the current conventional wisdom that development, coded as "nation-building," doesn't work. Of course it doesn't, if you don't do it right.

(In a way that should offer us no consolation whatsoever, it is worth noting that a large part of his article was demonstrating how ISIS was far worse at phase four than we were).

As then-President of the Carnegie Endowment for International Peace Jessica Tuchman Mathews [wrote about the Iraq surge in late 2007](#), “for America’s larger strategic interests, buying more time to continue the same strategy can achieve nothing. To do so is to ask American troops to fight to create breathing space for a corpse.” In the short-term, that was not the case: the gains made in security from the surge were significant and improved and lasted over the next few years, but beyond that, it is impossible to deny that the political breakthroughs the surge was designed to encourage did not materialize nearly enough and that all the security successes came undone between the actions of Maliki and ISIS by 2014. And unfortunately, Matthews’s quote reverberates far beyond Iraq and can sum up so many of our strategic failures in the era after World War II.

Our leaders were simply just not honest about what we were up against or did not know themselves, and, as a result, the public never really grasped what was going on and why things went the way they did. When the productive measures were taken, they would often be too little and/or too late, with far more death and destruction happening in the long-run as a result. As a society and a nation, we failed to properly address these threats, at great cost for ourselves and others. Shorter-term commitments were advertised as quick fixes that were really just false fantasies, increasing and extending the pain and perhaps dooming us to repeat ourselves in wasteful, [frustrating cycles](#) that left us demoralized, diminished, and depleted.

If reading this, you are asking yourself if this sounds familiar and eerily current somehow, well, [yes](#), it [should](#), as [our response](#) to the [unconventional coronavirus pandemic](#) fits [frighteningly](#) and [maddeningly](#) all [too well](#)—even [exactly](#)—into [these patterns](#) and [obviously so](#).

IV.) The World Fails on Coronavirus, Led by America

Living systems are not like mechanical systems. Living systems are never in equilibrium. They are inherently unstable. They may seem stable, but they're not. Everything is moving and changing. In a sense, everything is on the edge of collapse.

—John Arnold, in Michael Crichton's *Jurassic Park* (1990)

When asked recently “where” we went “wrong” specifically as far as the coronavirus pandemic but also generally, if there was an “exact moment,” journalist Masha Gessen [replied by saying](#) “I think there are many moments. But certainly, our responses, as a nation, to 9-11 and to the financial crisis of 2008, paved the ground for this, as has our persistent disregard for the climate crisis.”

We must hope that, in the long-run, we do not respond to the coronavirus in [incredibly self-destructive ways that echo](#) our responses to 9/11 and the other unconventional, asymmetric threats we failed to properly understand and handle as outlined above. Depressingly, though, the signs are already dire.

One of the most depressing things about this pandemic is that, as an American who had little faith in our leadership or system to significantly mitigate this looming disaster, I looked to countries with far more competent leadership and more centralized and robust health systems [than ours](#) to be beacons in the night of this pandemic, especially for democratic countries to beam in this true trial not just for humanity, but Western democracy, which has been [teetering of late](#). I saw [a few slivers of light](#) for effective coronavirus programs so far—[South Korea](#) especially [above all](#) but also [Israel](#), [Germany](#), plucky [Ireland](#), and, [at least](#) through [the present](#) and [perhaps](#) still to be, [Japan](#)—but, overwhelmingly, I saw darkness where I expected light in Europe [from technocratic establishments and national health systems](#) that (mostly) did not have [buffoons in charge](#) or the gaping holes of America's health system that this pandemic has displayed all-too glaringly. [Italy](#), [Spain](#), and [France](#) are obvious disasters, along with the [Netherlands](#) and [the UK](#) (whose Prime Minister, Boris Johnson, led the way with poor choices [both personally](#) and [as a leader](#) and found himself hospitalized [in an intensive care unit](#); and [just look at this thread](#) delving into differences between the UK and Ireland). [Even Sweden](#) seems [like it could be](#) an [example](#) of [bad-practice](#): like the [other mentioned countries](#), it [did not take](#) proper [precautions](#) for [long after it should have](#). Some of these countries are regular fountains of inspiration for Americans who expect more from their government, but these nations failed here along with us to varying degrees. In [the absence](#) of traditional U.S. global-level leadership, then, there [essentially](#) was [no global leadership](#).

Much of the developing world has yet to be hard hit, but [there is](#) great [potential](#) for the [tolls there](#) to [be devastating](#). The [terrible government response](#) in Brazil—[exemplified](#) by [the country's president](#), Jair [Bolsonaro](#)—seems [to be setting up](#) a [tidal wave](#) of [infections](#), which were recently likely [twelve times higher than officially reported numbers](#). In Ecuador, a country with little ability to conduct proper

testing to determine the full extent of the virus, the [death toll recently seemed to be fifteen times higher](#) than what officials there had been able to determine. [If the coronavirus spreads intensely in Africa](#), the [prospects there are also looking quite grim](#). In many poorer nations around the world, social distancing is [a privilege and a luxury that for a great many is impossible](#) (not even getting into the situation of earlier-discussed refugees). And already [terrible social and economic conditions in many developing nations](#) are only being [made exponentially worse](#) by COVID-19, meaning that [hunger is now going to be](#) a much larger problem globally, [rising to affect 265 million people](#) after factoring in coronavirus, nearly doubling the pre-pandemic figures. Other sad realities coronavirus will exponentially inflate include, but are hardly limited to, [domestic abuse](#), [human trafficking](#), and [suicide](#). The threat to the developing world is only exacerbated by the recent [inexcusable](#), despicable, [“incredibly stupid,”](#) and [needless](#) U.S. announcement that [it will halt funding](#) for the World Health Organization (WHO) [in the midst](#) of a global pandemic, a decision that for [many](#) in the world’s [poorest nations](#) that sorely [lack vital resources](#) amounts [to a death sentence](#) if that [funding](#) is not replaced soon from elsewhere; as if that was not enough, the Trump Administration [is seeking to do long-term damage](#) to the WHO beyond just [defunding it](#).

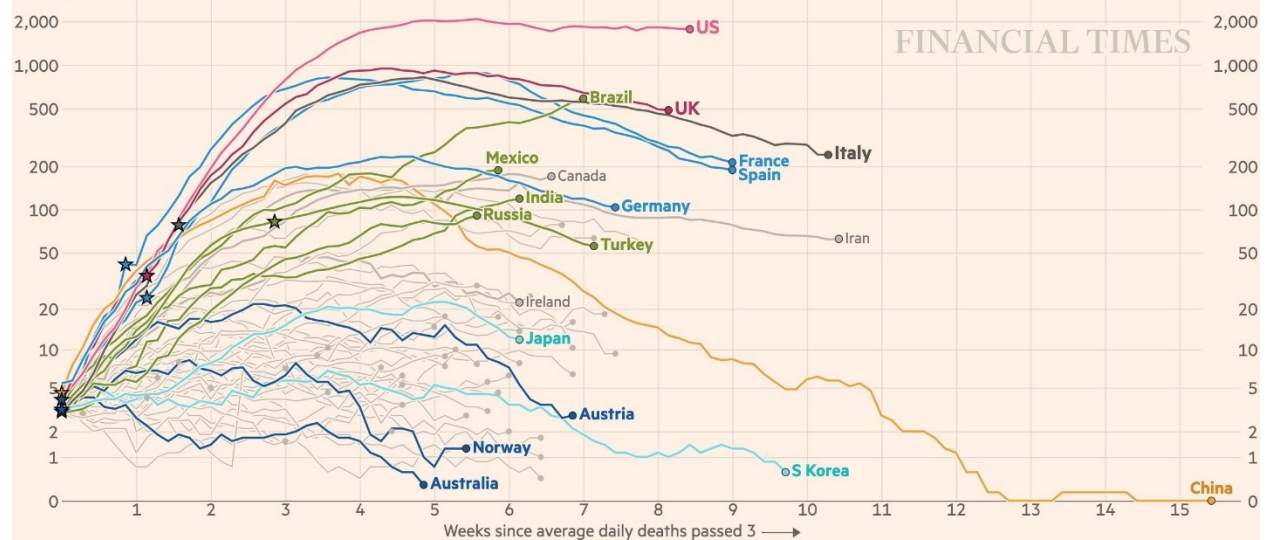
Despite plenty of poor responses globally, that [top national leadership in America seems to have stood out in failing miserably is not in serious dispute for anyone attempting objectivity](#). This was even [obvious fairly early](#), before most American were concerned, with [top government officials warning the president repeatedly in January and February about the extraordinary nature of the coronavirus threat](#) and bringing it to the attention of the White House’s National Security Council [even earlier](#). Others [outside the current Administration](#) also sounded the alarm early, including former Vice President Joe Biden—the now-clear Democratic presidential nominee-to-be set to challenge the incumbent president for the White House—who even wrote [an op-ed published on January 27](#) warning of the seriousness of the coronavirus threat and how ill-prepared we were to confront it. As Richard Haas, President of the Council on Foreign Relations, [made painfully clear](#), “putting off the decision to go on the offensive against COVID-19—treating a war of necessity as a war of choice—has proved extraordinarily costly in terms of lives lost and economic destruction.” In a pandemic [in which timing](#) has perhaps been the [most important factor](#) or at least as important as any, our leaders at the top sat passively—even stubbornly—and refused to look at the rising viral tsunami heading in our direction, let alone acknowledge it as the [hundred-year](#) plague it was.

Even the military has been [seriously affected](#), one notable example being [the Navy having to semi-abandon one of our aircraft carriers in mid-deployment](#), another being that [recruitment has been hampered](#).

And while books could be and [articles already have been written that demonstrate America’s failure clearly even for the most fanatically partisan supporters of the current leadership](#), here will be shared just this [excellent, highly informative, regularly updated chart from The Financial Times](#) that shows the U.S. is, literally, the worst at [“flattening the curve”](#) (the main format has been changed but there is an [interactive version of the below chart here](#) that lets you set up your own comparisons):

Daily death tolls are now at their peak or falling in many western countries

Daily deaths with coronavirus (7-day rolling average), by number of weeks since 3 daily deaths first recorded
Stars represent national lockdowns



FT graphic: John Burn-Murdoch / @burnmurdoch
Source: FT analysis of European Centre for Disease Prevention and Control; FT research. Data updated May 11, 22:13 BST
© FT

That phrase “flattening the curve” (or “bending the curve” as a precursor) was only understood by a handful of people a few months ago but is now well-known coronavirus-era lingo for [taking collective action](#) to limit the spread and [death-toll of the virus](#), to lower the height of the curve (bend it) over and then keep it from increasing (flattening it) so that our medical systems can better care for those infected (with bending again all the way down after flattening as the endgame). Clearly, our American curve stands out in the above chart as both the most stridently upward-trending arc and the arc that took the longest to be pulled down relative to other nations grappling with serious coronavirus outbreaks over a similar timeframe. Case/infection-counts are [highly problematic for a variety of reasons](#), but the deaths statistic is far clearer as to its weight, meaning, and finality, the above chart highlighting quite well that statistic and how well countries are at slowing deaths (even if [globally across the board there is a serious problem](#) of unintentional [undercounting](#) and [underattributing](#) deaths from coronavirus, tracking deaths is still far less ambiguous than tracking overall cases/infections).

So, relatively speaking, despite massive [daily disinformation to the contrary](#), the U.S seems to have done *the worst* job of flattening the curve of coronavirus deaths out of countries with significant levels of infection that have experienced fighting coronavirus for a similar amount of time, and this would seem to be the case even for allowing for countries like [China](#) (from which [this pandemic originated](#)) and [Russia](#), which are virtually [certainly deliberately underreporting](#) their coronavirus [case numbers](#) and [deaths](#) and also allowing for serious questions about developing countries with poor means of tracking the virus, as discussed earlier. And while the U.S. is hardly the worst in terms of [deaths per capita](#), the above chart shows with the available data that it is still the worst of any country with a major outbreak at *slowing* the level of death (and preventive measures like lockdowns [seem collectively to be a much more important variable](#) than population size or density, anyway).

And the chart just takes into account the deaths we know about; there are “almost certainly” [Americans dying from coronavirus not being counted](#) as [coronavirus-related deaths](#) because of [testing issues](#), reporting [issues](#), and other shortcomings, with this [hardly being the situation](#) only in the U.S.

In the U.S. in particular, [the lack of testing has emerged](#) as [one of the premier failings](#) regarding coronavirus, making our sense of how many are truly infected by (and, to a lesser extent, dying from) the virus woefully incomplete and [greatly hampering](#) our [ability to accurately model](#) the [spread of the virus](#). And this, in turn, makes it [very difficult for leaders to plan ahead](#) beyond the short-term. Especially because of [our lack of testing—one of the most crucial aspects](#) of coronavirus response—we are essentially on a ship at night in heavy fog, trying to see what obstacles lie ahead and how to avoid them but [unable to see](#) far in front because of that fog and unable to have any solid sense of when the fog will lift or if or when it will return. Under those conditions, crashing into an iceberg and sinking is far more likely. A military counterinsurgency analogy is also apt, as not having enough testing is like trying to neuter an insurgency without having intelligence or enough regular patrols to get a lay of the land before, say, sending a major convoy through enemy territory: with few pieces of intelligence and fewer teams gathering intelligence, the chances the enemy can launch a successful ambush on that convoy when it is sent out are far greater than if you had a much larger number of troops getting much more intelligence on the enemy territory. Intelligence helps to lift the fog of war, then, while testing helps to lift the fog of pandemics.

Considering a [detailed, highly-credibly report](#) from last year [ranked America, by relatively far, as the best-prepared nation](#) in the world for a pandemic, the failure in U.S. leadership is even [more stunningly spectacular](#) and [inexcusable](#); it is like losing a race in which you started ahead of *everyone* or if you were, say, someone who [inherited millions](#) and were already working in a lucrative field (maybe [real estate in Manhattan in the 1980s](#)) and then still managed to go bankrupt [six times](#).

In the words of Max Brooks from [another interview](#), this one from late March:

I think that we have been disastrously slow and disorganized from day one. I think the notion that we were caught unaware of this pandemic is just an onion of layered lies. That is not true at all. We have been preparing for this since the 1918 influenza pandemic. No excuse...The knowledge was out. We knew. We did not prepare. This is on us.

...All of this panic could have been prevented if the federal government had done what it was supposed to do before the crisis became a crisis. Because the way to stop panic is with knowledge, and if the president had been working since January to get the organs of government ready for this, we as citizens could have been calmed down knowing that the people that we trust to protect us are doing that.

A friend of mine, Ellen Adair ([an actress who played a top senator's chief of staff](#) in *Homeland* in its previous season while that universe's America was facing nontraditional, asymmetric threats similar to the types we are currently facing from Russia), pointed out a specific article from a few years back that saw all too much of this coming: [writing in the summer of 2018](#) for *The Atlantic*, Ed Yong terrifyingly accurately predicts not only America's general unpreparedness for a pandemic, but why this current administration would be particularly ill-suited for handling one (his [late March, 2020, predictions](#) for how this will end—made when the U.S. outbreak was starting to really pick up steam and yet was still a fraction as bad as it is now—should also be of interest). While the entire piece from before COVID-19 even existed feels exceedingly current and sickeningly prescient, I felt particular chills reading these words:

Perhaps most important, the U.S. is prone to the same forgetfulness and shortsightedness that befall all nations, rich and poor—and the myopia has worsened considerably in recent years. Public-health programs are low on money; hospitals are stretched perilously thin; crucial funding

is being slashed. And while we tend to think of science when we think of pandemic response, the worse the situation, the more the defense depends on political leadership.

...Preparing for a pandemic ultimately boils down to real people and tangible things: A busy doctor who raises an eyebrow when a patient presents with an unfamiliar fever. A nurse who takes a travel history. A hospital wing in which patients can be isolated. A warehouse where protective masks are stockpiled. A factory that churns out vaccines. A line on a budget. A vote in Congress. "It's like a chain—one weak link and the whole thing falls apart," says Anthony Fauci, the director of the National Institute of Allergy and Infectious Diseases. "You need no weak links."

Right now, we look bad, and the idea of the U.S. leading the world when [it cannot lead itself](#) anymore is indeed going to be problematic for many who used to be comfortable with U.S. leadership or, at least, tacitly accepted it. That does not mean there will be a new world order overnight, but it sure will be harder for not just millions, but likely hundreds of millions or even billions of people to see the U.S. as a leader after [our failures](#) with this virus are [literally broadcast every day](#) for [global public consumption](#).

Of course, there is [plenty of blame](#) to [go around](#) in [America](#), from [governors' mansions](#) to various [media outlets](#), from [our very own](#) American [culture](#) to [ourselves](#), from [individual institutions](#) to [local leaders](#). One standout in that last group is the Wisconsin Assembly Speaker telling people during the recent [controversially-held dangerous April 7th elections](#) in his state to go outside and vote after [he himself worked to stop](#) both extending absentee voting and delaying the election [despite the pandemic](#), saying this to Wisconsinites this [while wearing](#) what seems to be a hospital-quality mask, gloves, and gown set. [Dysfunction](#) and [division](#) is not just present at the federal level and [between states](#) and [the federal government](#), then, but [within states](#), between [governors and mayors](#) or [others](#) all [throughout the country](#): in South Dakota, there is even [a dispute between](#) the governor and Sioux tribal authorities.

But in dire emergencies like this, the national leaders set the tone for the nation as a whole, with many others farther down the totem pole [taking their cues from national leadership](#), none more so than the top national leader, be it a president, prime minister, or king. And this is the way it should be. When we were attacked at Pearl Harbor all the way back in 1941, we did not have dozens of regional, state, city, county, and town war policies operating independently from one another: we had [a coordinated national effort](#), and fighting deadly national and global pandemics should be no different. In the 1940s, we were able to triumph in our finest national hour even as we were caught off-guard. That clearly has not happened with coronavirus, and our ["collective" "national" response](#) can be said to be [anything but a single one with unity of purpose](#).

In stunning displays of hubris and lack of preparation, Napoleon in 1812 and Hitler in 1941 famously [sent their armies towards Russia](#) in June, months away from the famed Russian winter, with [no winter clothing](#). Now we can similarly say that, in 2020, the American President allowed our medical first-line responders to face off against coronavirus without nearly enough proper protective gear despite having weeks and months to take proper action to equip them.

We could have approached this coronavirus threat with the mentality of the Starks in [Game of Thrones](#), whose mantra is ["winter is coming"](#): *be prepared, get ready, unite, take this threat very seriously, take*

nothing for granted. Instead, (spoilers for the show/books in this sentence) our leaders were more like Queen Cersei Lannister in the final seasons: warned repeatedly and with a zombie-wight coming at her face-to-face, she still did not prioritize dealing with the Army of the Dead and, instead, took the crisis as an opportunity to advance her personal and political interests, to settle scores and amass power for herself.

Wherever blame should or should not be placed, this novel (new) coronavirus has brought the world to its knees. [Socially](#) and [economically](#), a [huge portion](#) of [global activity](#) has [come to screeching halt](#) or, at least, a vastly reduced intensity. Something this sudden on a global scale is new for humanity, and we have no idea even when this pandemic will really end (other than an [increasing understanding that the end will probably not be soon](#)), if it will end, [how soon](#) other [waves will come](#) or [how bad those waves will be](#) (they may be worse). The virus's [national](#) and overall global spread [even seems to be increasing](#) several months into the pandemic, not decreasing. [We do not know](#) how many people will die (today, there will be over [350,000](#) worldwide and [over 100,000](#) in the U.S. for just the *recorded* COVID-19 deaths), except that [earlier rosier](#) predictions [are now clearly](#) way [off the mark](#). People are deeply fearful of [a deeply uncertain future](#) and [what the world](#) will look like [after this virus leaves its initial mark](#). Thus, this novel coronavirus is not only engendering a sense of fear throughout the human race, but also terror.

But the true terror is to come.

V.) A Far More Worrisome Future

The death wish of the theocratic totalitarians, for themselves and others, is too impressive to overlook.

—Christopher Hitchens, “[Terrorism: Notes toward a definition](#),” *Slate*, November 18, 2002

Ultimately, humanity might not end with a bang but with a feeble cough.

—Max Brooks, “[The Next Pandemic Might Not Be Natural](#),” *Foreign Policy*, April 20, 2020

Despite the examples listed earlier in our brief biowarfare and bioterrorism survey and other acts not included therein, both biological warfare and bioterrorism have been exceedingly rare in history.

One obvious reason for this is that it is hard to ensure that such weapons only infect the enemy and not also the people attempting to do the infecting and their compatriots (Japanese forces, for example, [incurred thousands of casualties](#) from their own bioweapons use in China). In other words, bioagents are so dangerous that they have mostly been felt to be too dangerous to use, especially on a larger scale.

The idea that is *supposed* to give us comfort is that, in theory, it is not rational to use such weapons. Yet the country with the largest bioweapons program in history—the Soviet Union—was regarded as insecure, famously concerned with [self-preservation](#) and [constrained by rational realpolitik](#) as a result, making it fairly predictable. Sure, the Soviets did not use these weapons, but they still put smallpox in ICBMS and worked to create disease even worse than Mother Nature has been able to create.

Rather than us being able to trust in some solid proof of human rationality—the concept of which, as an overall rule, [is highly debatable at best](#)—then, I feel the non-use of biological weapons (similar to the situation with nuclear weapons after 1945) is less a natural product of human wisdom or design but, instead, is a product of [the small-N problem](#), that dilemma of comparative studies and of politics in general: that there is such a small number of relevant actors with bioweapons capabilities that we cannot draw rock-solid proof from those weapons’ non-use that this is non-use some sort of “natural” outcome. In short, we have likely just “lucked out” biological (and nuclear) weapons have not been used because only a handful of governments have had serious capabilities and the technology was advanced enough to the degree that it was hard to have anyone other than governments and specialized scientists develop them, and of these small samples, only a handful of those had the will to actually pursue these weapons, with an even far smaller number pursuing their use.

As any basic statistics primer would tell you, though, the more actors that develop such capabilities, the greater the chance that such capabilities will eventually be used, with that probability increasing being a mathematical certainty.

And therein lies one of the major current problems. For, even before now, technology had advanced in recent years to a degree that has made it far easier for governments, organizations, and individuals to research, produce, and deploy these weapons: the internet has made the information on how to do all that more available than ever before; logistics technology have made the ability to obtain and transport necessary materials easier than ever before; and advances in medical science and technology have opened up bioengineering and made creating biolabs easier, by far, than ever before.

So that “small-N (number)” reality an ally in perpetuating the non-use of bioweapons, that bulwark that so few people had access or ability when it came to what was needed to operationalize bioweapons, has been dramatically weakened in recent years as the breadth of actors with the ability to research, develop, and deploy bioweapons has grown exponentially in recent years with the latest remarkable advances of human civilization.

The math, then, has changed: that *probability* that the small-N problem kept so low *is now dramatically higher*.

Even putting aside the small-N problem being a more likely explanation for general non-use of bioweapons up through the present than our own supposed rationality—even if we accept, in principle, that it is our rationality that is to be credited for the lack of biowarfare and bioterrorism and could take comfort in that—the future still looks comparatively bleak. And the reason for that is because, relative to the rest of the modern era, we are seeing an explosion in those swelling the ranks of [apocalyptic-minded](#) groups of [religiously-motivated](#) violent [extremists](#). Indeed, our era has seen a sharp increase in the number of [terrorists willing](#) to sacrifice themselves, their people, and countless innocent civilians in pursuit of their [apocalyptic goals](#). Such [terrorists](#) are possessed with [end-times-oriented mindsets](#) that are [hell-bent on accelerating](#) the [arrival of the apocalypse](#), with [ISIS](#) as the [flagship movement](#).

If we add to that equation the possibility of governments using newer science—especially genetic engineering and advanced vaccination programs—to perfect a way to immunize their own militaries and people against a weapon they could then feel safe to deploy against others and therefore confident to weaponize and develop, then the threat of bioweapons being used against America and others is only increasing by yet another factor. If you think this sounds too much like science fiction, recall how a mass biological test on the part of the U.S. government infected the whole San Francisco metropolitan area in 1950 and how the public never learned about it until 1976. In other words, if another government wanted to immunize its population against something pretty nasty without drawing attention to that nasty something, there are more than a few ways to immunize people without people even knowing they are being immunized (slipping in with other standard immunizations, perhaps adding into the water or food supply, manufacturing a controlled “outbreak” that would give cover for a mass immunization, etc.), especially for a government motivated enough to carry out and plan years in advance a biological first strike with a deadly bioweapon.

But there are other technological multipliers that have yet to have their potential impact be anywhere near realized that make the future look even less comforting. Technology has just recently been advancing, and is continuing to advance, rapidly in such a way that it is only going to exponentially increase the number of actors able to carry out biological attacks, and that is even in addition to the exponential increase that has already occurred recently. And perhaps the foremost reason for this coming exponential growth in potential biothreats and actors is a new genetic engineering technique

known as [CRISPR](#)—Clustered Regularly Interspersed Short Palindromic Repeats—that makes it [far easier and cheaper to create bioweapons](#) than ever before.

To put this into perspective, some CRISPR kits were [selling for under \\$150](#) even in 2017. A United Nations panel even characterized this CRISPR threat as do-it-yourself bioweapons creation (“[DIY biological labs](#)”). [One post](#) from a leading bio research and development company that has led on, and sells, CRISPR tools and material ended by noting CRISPR’s “usefulness for genome locus-specific recruitment of proteins will likely only be limited by our imagination.” And if we recall that *Dream of Scipio* quote from the introduction about how man is worse than beast because beasts are constrained by their *lack* of imagination but men are not, well, that is where this gets truly terrifying. Indeed, the [alarm has been soundly rung](#) by [many an expert](#) on the [soon-to-be-clear](#) and [present danger](#) of [this CRISPR technology’s ability to empower those with the most malevolent of imaginations](#). We are, then, being presented with a [brave new world](#) of bioterrorism.

Thus, the guardrails—supposed or real—that may have offered protection from the use of bioweapons before are simply not as strong as they used to be. Even if we accept human rationality as a bulwark, some of the biggest increases in terrorism involve suicide attackers and those embracing apocalyptic theology hoping to bring about a final world-ending confrontation, comforted by an ideology that tells them if they die as martyrs fighting for their cause they will ascend to heaven with a special spot waiting for them, with a degree of terrorists and terrorist groups concerned less with temporal self-preservation than at any other time in the modern era. And whatever their motives, the modern world has not only already made bioweapons more accessible than ever to them, but will also dramatically expand this greater accessibility with the newest CRISPR technology that will itself spread rapidly. Thus, we have both terrorists increasingly less worried about doing damage to themselves and a far greater number of actors that will be dabbling in bioweapons.

I had earlier discussed Max Boot’s lesson on technology [at the end of his book *Invisible Armies*](#) (“technology has been less important in guerrilla war than in conventional war”), but I left out the second part of his lesson’s heading, “but that may be changing,” to save it for here. He does not mean the usefulness of technology on *our* end, either; he is talking about a change in favor of terrorists:

The role of weapons in this type of war [i.e. unconventional] could grow in the future if insurgents get their hands on chemical, biological, or especially nuclear weapons. A small terrorist cell the size of a platoon might then have more killing capacity than the entire army of a nonnuclear state like Brazil or Egypt. That is a sobering thought. It suggests that in the future low-intensity conflict could pose even greater problems for the world’s leading powers than it has in the past. And, as we have seen, the problems of the past were substantial and varied.

And the type of weapons which are seeing the most rapid advancement in technology and ease of access are not chemical or nuclear, but biological.

In fact, as Karl Johnson, one veteran of fighting Ebola outbreaks, [mentioned over a quarter-century ago](#):

It’s only a matter of months—years, at most—before people nail down the genes for virulence and airborne transmission in influenza, Ebola, Lassa, you name it. And then any crackpot with a few thousand dollars’ worth of equipment and a college biology education under his belt could manufacture bugs that would make Ebola look like a walk around the park.

For Max Brooks, “Johnson’s prediction is right around the corner. With a little dark-web information and some secondhand lab equipment, anyone will soon be able to generate do-it-yourself blights in a basement lab and then release them back into the general population.”

Brooks echoes the earlier sentiments expressed herein that public policy attention given to threats posed by nuclear weapons are overemphasized relative those given to biological weapons. As Brooks writes in *Foreign Policy*:

Genetic manipulation is the most dangerous threat humanity has ever faced because it allows anyone to spin straw into lethal gold. Unlike the hypothetical nuclear terrorist whom we’ve spent untold fortunes preparing for but who can’t act without acquiring precious, rare, and heavily guarded fissile material, the biohacker will be able to harvest germs from anywhere. And unlike the nuclear terrorist, who gets only one shot at destruction, the biohacker’s bomb can copy itself over and over again.

If we look at the present and the future, then, without a doubt, terrorists and governments that have been and are pursuing the research and development of arsenals of bioweapons will only be doing so under even more favorable conditions to their goals as the future unfolds, including the near-future. For these biowarrior wannabes, they are seeing what just something superflu/superpneumonia-ish like this coronavirus can do and are thinking of the damage and havoc they can wreak with far worse diseases. And not only them but those who were on the fence about or reluctant to consider pursuing bioweapons programs will be seriously thinking that now. Because the logical conclusion anyone contemplating biowarfare would draw from our current pandemic is that if coronavirus can do what it is doing now to America and the world, a deliberate, competent bioattack at a certain level could destroy the world as we know it. We must realize that, to the degree that we are unsettled and shaken by looking at the state of our nation, our enemies are emboldened and more confident in their ability to do us harm.

Just imagine a brand new virus engineered to kill thirty percent—let alone fifty or seventy-five percent—of victims and that incapacitates most of the rest, one that spreads like wildfire, for which we have no immunity and no cure, which could cripple nations in days (not weeks), wiping out some people in key leadership positions along with millions of others, and incapacitating for days or weeks even those that survive. Imagine the people unleashing such a disease are religious terrorists with apocalyptic death-wishes (plenty of those) or military officials from a government that has developed a secret immunity that only they and their countrymen have. Imagine, while we are crippled, our enemy then offers the immunity it to allies or potentially new allies in the moment of crises, allowing it to destroy the nations as we know them that it deems enemies, remaking a world order with our successful enemy at the top. Even staunch allies of ours would be tempted to fold in the face of a weapon for which the only defense comes with joining the new order.

Think about the decades to come, in a world far more crowded where living space will literally be an issue, imagine an invasion by troops immune to the virus; with our leaders, government, and society—including the military—largely wiped out or crippled by the disease, how would an effective resistance—military or medical—to a simultaneous military *and* viral invasion be able to be mounted in the face of an organized enemy largely escaping the effects of such a disease? And if the enemy offers immunity for a disease for which we have no cure and have no hope of dealing with medically in time in exchange for surrender, if the choice is between surrender and death, what happens to us and America as we

know it? The sixteenth-century Spanish conquistadors did not plan to use the smallpox virus as a biological weapon to mostly wipe out the mighty armies of [the Aztecs](#) and [the Incas](#) and bring their societies [to their knees](#) with it in the span of a blink of a historical eye, but [smallpox obliged anyway](#), and the Spanish wiped those Empires easily from the face of the earth as a result. The same devastating effects with the right cocktail of virus can happen today.

[One case study](#) shows how a just single person can easily cause over a dozen new coronavirus infections; imagine how few infected people would be required to mass-transmit a far worse virus like the hypothetical engineered one described a few paragraphs above.

Now consider that our current [coronavirus](#) has [already weakened](#) and [damaged democracy](#) in [some places](#) —[including in the U.S.](#)—[pushed it to the brink](#) in [others](#), and, at least [in the case of Hungary](#), seems to [have destroyed it](#). And that does not even get to authoritarians and the authoritarian-leaning, for whom the virus has been [an excellent excuse](#) to [crack down on freedoms](#).

The simple truth is, we are not prepared even for a naturally occurring pandemic like coronavirus, let alone a worse one than coronavirus, let alone even more so bioagents designed to as a weapon by our human enemies to kill us and crush our society.

How we appear now matters to our enemies, and not only was the U.S. caught off-guard, its overall response has exposed our weaknesses to the world (and hopefully ourselves).

VI.) The Harsh Truths Coronavirus Has Exposed

Every morning in the endless month of March, Americans woke up to find themselves citizens of a failed state.

—George Packer, “[We Are Living in a Failed State](#)/Underlying Conditions,” *The Atlantic*, June 2020 issue preview



“COVID, in a lot of ways, is a great equalizer.” Coco Tang is one of many working the front lines of the coronavirus pandemic in New York City, pictured here in Times Square in late April (Photo: Coco Tang).

I met fellow American Coco Tang years ago in Amman, Jordan, while she was on a Fulbright. When not working as a consultant, she moonlights as a medic in some of the world's worst hotspots. Her postings have found her supporting as a medic both Iraqi Special Forces during the battle of Mosul against ISIS and OSCE patrols in Eastern Ukraine, working in refugee camps in Syria and Bangladesh, working in a clinic in Afghanistan, treating vulnerable women in the South Kivu region of the Democratic Republic of the Congo, assessing local health in Ethiopia, and working in Sierra Leone as part of the Ebola response there. She goes to some of the most dangerous places in the world to offer medical support, often in extreme humanitarian and medical emergencies.

And now she finds herself offering medical support in New York City during a pandemic, deployed by a medical company to the front lines in the war against COVID-19 here at home.

"When I worked in Iraq or Syria, there was an expectation of austerity. When you work in NYC, the austerity feels surreal. Experiencing it in a place like NYC reminds me that COVID, in a lot of ways, is a great equalizer."

That is what makes bioweapons as a weapon of war or terrorism so terrifying to powerful countries like America: it reduces the conventional operational planes in a way that is so unconventional and asymmetric that its extreme asymmetry rips the powerful far from their accustomed, advantaged positions.

Nobel Prize-winning economist Joseph Stiglitz [just recently remarked](#) that the U.S. coronavirus response makes it look like "like a third-world country." Tang has experienced a similar feeling in New York: "People expect pandemics to be a third-world problem. People expect problems like PPE [personal protective equipment] shortages to be a third-world problem." And, yet, here she was, grappling with serious equipment shortages during a pandemic here the U.S., and not in Appalachia, but in New York City, in Manhattan. "COVID exposes that we aren't any better than those countries we always look down on. That at the end of the day, America is just a homeless person wearing fancy clothes."

Tang was not even being asked about bioweapons when she made that statement, but she still nailed one of the central issues in biowarfare and unconventional warfare and how COVID-19 relates to it. As mentioned earlier, Max Boot wrote that "all guerrilla and terrorist tactics...are designed to negate the firepower advantage of conventional forces." Bioweapons just do this on a deeper, more frightening scale, and coronavirus is showing us that natural pandemics can have the same effect. In many ways, our current pandemic is a preview of a major bioweapons attack, and it has exposed us as woefully unprepared, with our government having been shown to be unable to protect us, thought of by many to be the primary role of government. It *could have*, but it *did not*. [Americans' faith in institutions](#) has already been [crumbling](#) for [some time](#), and now that level of faith will be even lower.

Feeling the need to explain why she was writing her [article in March for *The Atlantic*](#), Anne Applebaum made her case in stark terms that reflected Tang's imagery:

I am writing this so that Americans understand that our government is producing some of the same outcomes as Chinese communism. This means that our political system is in far, far worse shape than we have hitherto understood.

...The United States, long accustomed to thinking of itself as the best, most efficient, and most technologically advanced society in the world, is about to be proved an unclothed emperor.

George Packer also wrote for *The Atlantic*, echoing Tang, Applebaum, and Stiglitz in a piece titled “[We Are Living in a Failed State](#)” with the lead “The coronavirus didn’t break America. It revealed what was already broken.” Packer does not hold back as he opens his article’s body:

When the virus came here, it found a country with serious underlying conditions, and it exploited them ruthlessly. Chronic ills—a corrupt political class, a sclerotic bureaucracy, a heartless economy, a divided and distracted public—had gone untreated for years. We had learned to live, uncomfortably, with the symptoms. It took the scale and intimacy of a pandemic to expose their severity—to shock Americans with the recognition that we are in the high-risk category.

The crisis demanded a response that was swift, rational, and collective. The United States reacted instead like Pakistan or Belarus—like a country with shoddy infrastructure and [a dysfunctional government](#) whose leaders were too corrupt or stupid to head off mass suffering.

...With no national plan—no coherent instructions at all—[families, schools, and offices were left to decide on their own whether to shut down and take shelter](#).

Explaining how we got to this state, Packer writes that “all the programs defunded, stockpiles depleted, and plans scrapped meant that we had become a second-rate nation. Then came the virus and this strange defeat.” Not only are we losing this war, this war is forcing us to see our national ugliness by relentlessly shining a spotlight onto it and forcing us to look nonstop. Packer, again, puts it eloquently: “If the pandemic really is a kind of war, it’s the first to be fought on this soil in a century and a half. Invasion and occupation expose a society’s fault lines, exaggerating what goes unnoticed or accepted in peacetime, clarifying essential truths, raising the smell of buried rot.”

In periods of pestilence, there is a tendency for those fault lines to be racial, ethnic, and religious, with those types of hatreds being only too eagerly released and [minority groups being blamed](#) for the outbreaks.

Just to name one foreign example for today, in [Hindu chauvinist](#) Narendra Modi’s India, [anti-Islamic bigotry is becoming mixed up](#) in the country’s response to coronavirus.

If we [go back in time](#), ignorant and/or [covetous Christians](#) in fourteenth-century Europe [blamed Jews for the Black Death](#) and [massacred many thousands of them](#) across the continent, [destroying whole communities](#) and ethnically cleansing Jews from entire regions (just in Mainz alone, [over 6,000 Jews perished](#) from a plague-inspired pogrom in 1349). If we fast-forward to today, [Jews are also being blamed](#) in very anti-Semitic fashion by a range of extremists around the world ([including in America](#)) for unleashing coronavirus as some sort of organized plot, bringing down “God’s” vengeance in the form of the virus, or of profiting off the pandemic (or a combination of these); billionaire Jewish philanthropist George Soros is even frequently [accused of creating the virus](#).

In the U.S., Asian-Americans and Asians are also [being attacked—including physically](#)—and [blamed](#) for the virus “because” of the [virus’s Chinese origin](#), with [anti-Asian hate crimes](#) very much [on the rise](#), yet the federal government [is not being proactive](#) in [pushing back against](#) this hate, with [problematic language](#) coming [from the White House](#) itself [only adding fuel to the fire](#).

There is also the persistent racism and [pervasive inequality](#) that [long-plagued](#) American society, with [socioeconomic status](#), harsher [living and working conditions](#), and [unequal access](#) to quality healthcare

experienced disproportionately [by certain groups of people](#) contributing to their having chronic health issues that make the virus more serious and more deadly for them than for members of more advantaged communities. Inequality also makes it [far harder](#) for some disadvantaged groups to [take appropriate actions](#) to protect themselves; in the words of Charles Blow [writing for The New York Times](#), “Staying at home is a privilege. Social distancing is a privilege. The people who can’t must make terrible choices: Stay home and risk starvation or go to work and risk contagion.” Problems of [race](#), [ethnicity](#), and [class](#) are [only made worse](#) by coronavirus.

In particular, the inequalities that have long been [inflicted upon African-Americans](#) have been resulting in [incredibly disproportionately high](#) deaths and serious infections [from COVID-19](#) for African-Americans. Just in Chicago, by the end of the first week of April, African-Americans had accounted for [seventy percent of COVID-19 deaths](#) even though they just made up thirty percent of the population. And Chicago is [hardly alone](#), with [major disparities](#) for black Americans in terms of coronavirus being [the norm across the country](#).

Other groups in America are also suffering disproportionately from this pandemic. [Long-neglected Native Americans](#) are also [particularly vulnerable](#) and [experiencing](#) extremely [high rates](#) of coronavirus problems. [Latinos are also](#) quite [disproportionately](#) affected [by COVID-19](#). And [lower-income people](#) of all backgrounds have relatively [borne the brunt](#) of not only [the virus itself](#), but [also](#) the [massive economic harm](#) inflicted [by the pandemic](#).

As Brooks noted in that [mid-March interview](#), “All of these terrible, terrible trends that we’ve been sowing for so long are coming back to haunt us right at this minute.”

Our [unending](#), longstanding [American divisions](#)—politically [partisan](#) and [otherwise](#)—are [only intensified](#) by this unconventional, asymmetric pandemic, much like the unconventional, asymmetric threats from [the Vietnam and Iraq Wars](#) and [Russian election](#) interference [aggravated](#) existing American societal [fault lines](#). The virus, [rather than](#) showing our ability to unite, [is](#) instead [exposing](#)—even [more](#) than [recent politics](#)—our [capacity for coming apart](#). For Packer,

the virus should have united Americans against a common threat. With different leadership, it might have. Instead, even as it spread from blue to red areas, attitudes broke down along familiar partisan lines. The virus also should have been a great leveler. You don’t have to be in the military or in debt to be a target—you just have to be human. But from the start, its effects have been skewed by the inequality that we’ve tolerated for so long.

Then there is the black hole where our coordinated national response should have been.

The most extreme example of this has manifested itself in a disturbing, unprecedented, and stunning situation that just unfolded in Maryland, exemplifying a breakdown in the constitutional order and national fabric not seen since the [era of desegregation](#). This stunning incident hints at China’s twentieth-century [warlord era](#), when the Qing Dynasty’s central government broke down and basically melted away in so many places to such levels that China de facto became [a relatively large number](#) of separate states [run by warlords](#) who had to step up and provide leadership in the void left by the Qing. They also had to contend with the Chinese Nationalists and Chinese Communists as everyone fought

each other, with the Japanese Imperial Army and WWII eventually merging into the conflicts; dysfunction and chaos reigned (and incidentally, remember, this situation would eventually see the most extensive use of bioweapons in the history of warfare). To return to the American present, in the absence of timely or coherent support from the federal government, Gov. Larry Hogan of Maryland and his wife, Maryland First Lady Yumi Hogan—of Korean descent—negotiated with South Korea to obtain 500,000 coronavirus tests. The process took twenty-two days and the tests were flown over from South Korea, with the Korea Air passenger plane—which would normally have landed at Dulles International Airport in Virginia, just outside Washington, DC—being diverted to Baltimore-Washington International airport in Maryland, the first time that airline has ever flown to that the airport. This was done purposefully to prevent the seizure of the tests by the federal government, which had earlier seized three million protective masks ordered by Massachusetts Governor Charlie Baker for his state, among other seizures from governors taking matters into their own hands because of the Trump Administration's unwillingness to directly supply the states with necessary quantities of emergency supplies. It is remarkable that states that had asked for federal aid, had their requests denied or unfulfilled, then followed the Administration's advice to procure their own supplies then saw federal authorities seize those very supplies. It is also worth noting that both Govs. Hogan and Baker are Republicans along with Trump, not to say that should make a difference but to point out how even fellow Republicans are unable to work with the current Administration. Also out fear of the tests being seized at the airport, Hogan had "a large contingent" of Maryland National Guard troops and State Police sent to secure the tests and transport them to "an undisclosed location" that is purposely being kept secret from the federal government. Those tests are still being guarded by Maryland National Guard and State Police at that location to protect them from possible federal seizure, with Hogan saying the cargo "was like Fort Knox to us" since the tests were "going to save the lives of thousands of our citizens" and noting the earlier federal seizures of supplies ordered by other states.

In effect, Maryland's sitting governor—in the same political party as the president—ran a clandestine operation to prevent life-saving equipment Maryland taxpayers had bought and paid for from falling into the clutches of the Trump Administration after that administration had failed to provide Maryland with requested aid and those coronavirus tests are still being guarded at a secret location by security forces under the command of the governor.

In case this is not clear, that is a total breakdown of the relationship between Maryland and the federal government, with Maryland essentially rebelling against the Trump Administration's potential designs and actual authority. Gov. Hogan essentially became a de facto rogue governor—much like warlords in China after the Qing dynasty disintegrated and left a power vacuum of chaos in its wake—when it came to securing and protecting coronavirus tests for Marylanders. One can only hope this is the first and last example of anything like this happening during the pandemic, but that hope is not carried with any certainty.

To add to Maryland's woes, the state just canceled a \$12.5 million order for other important emergency equipment—1.5 million protective masks and 110 ventilators—from a brand-new firm founded by two Republican political operatives. The company was drastically overcharging for the masks and the items were supposed to ship by mid-April, but there is no indication they have shipped, and despite repeated requests from Maryland on the order status, no information on the shipping has been provided, prompting the cancellation at a time when Maryland is seeing a surge in cases and deaths.

Yes, right now, we are seeing states, the private sector, and the Executive Branch [beg](#) for, [haggle](#), and [tussle over](#) urgently-needed PPE and other lifesaving supplies. In other words, too much is being left to chance, the market, the whims of suppliers, and the relative means of various states even in the middle of a pandemic, with the private sector playing a mighty role, one that involves price and bidding wars. The result of this [top-down-driven logistical nightmare](#) is that vital medical supplies and equipment [are in short supply](#) in too many places in America fighting this pandemic. People, both patients and healthcare workers, [are getting sick](#) and [dying](#) after [being in situations](#) where [they did not have](#) what [they should have had](#).

Even if the vaunted Defense Production Act—a Korean War-era law greatly empowering the government to direct industry in times of emergency—had been [robustly and properly](#) executed ([and it still has not](#)), a tremendous amount of the logistics would still have come down to an ad hoc approach. And the [ad hoc approach is only adding](#) to the confusion and chaos. As Gen. Russel Honoré ([who helped lead America's response in New Orleans](#) after Hurricane Katrina) [explained about this current crisis](#), the main choices for logistics are between the Federal Emergency Management Agency (FEMA, a civilian agency under the Department of Homeland Security, or DHS) and the military. But, as he also explained, FEMA is designed to handle one or several localized emergencies at once, [not a full-fledged national one](#); it simply does not have the capacity to run as the point organization for this pandemic. At the same time, the military does not have any recent experience managing national operations across most or all U.S. states at once (or operating withing domestic local, state, and federal legal systems) and much of the military's operations would have to be also handled in an ad hoc way, with dozens of senior officers having to liaise with dozens of governors and far more local officials to coordinate efforts in addition to private-sector entities; they would rely heavily on their civilian counterparts, most of whom would have little or no training or understanding of how to respond to such a situation or work with military officials; one hopes coronavirus will swiftly bring about a filling-in of these gaps in expertise). Writing for MWI, [Mississippi National Guard Maj. Dennis Bittle](#) [notes](#) that National Guard troops have been deployed as part of coronavirus responses in all fifty states, the District of Columbia, and multiple U.S. territories, yet the existing frameworks for Guard deployments to be robust parts of these local responses are far from ideal in this unprecedented situation. Specifically, federalizing Guard units would be highly problematic since so many Guard personnel are much-needed local first-responders in their civilian roles.

Without proper supplies allocated, distribution networks and equipment, and the personnel to run and move under the direction of the government, as noted, individual states are having to compete in bidding wars and fights over supplies with each other, businesses, [the federal government](#), and [even foreign countries](#) just to get [desperately needed](#) life-saving supplies. In what Gen. Honoré [called a supply chain situation](#) that he has “never heard...before in my life [that]... look[s] like they have let the literal wolf inside the henhouse,” states are being bypassed for direct aid by the federal government [for corporations](#) to then sell to states and, overall, there is little to no oversight, no singular body distributing supplies nationally based on objective [needs-based criteria](#) (by mid-April, Montana, with few cases, was getting over \$300,000 in federal aid per case, while New York, the epicenter of coronavirus in America, [was just getting \\$12,000 per case](#)).

There is even [at least the appearance](#) that federal disbursement and [non-disbursement is happening](#) as a form of [political favoritism](#), as [quid pro quos](#). On top of all this, the federal government's own stockpile [was nearly empty as of early April](#) apart from federally-[confiscated supplies](#) bought and paid for (and needed) by private hospitals and state and local authorities, activity we delved into earlier with the shocking case from Maryland. Together these factors are just further amplifying senses of desperation, helplessness, and violation of trust.

Adding to those panicked feelings are how the White House has handled communications: as U.S. Army Reserve Maj. Wonny Kim [writes also for MWI](#), all this is further exacerbated "by public communications that has been haphazard, to say the least," and in visible ways for all to see that undermine America's standing in the world and [encourage our authoritarian adversaries](#). Our own officials have even concluded that Russian intelligence is even "likely" [using the pandemic to gain information](#) on U.S. logistical weaknesses.

Sadly, [we have seen](#) with the [federal response](#) and in [other responses](#) that [political leaders](#) are [free to ignore or contradict the advice](#) of [medical](#) and [intelligence experts](#), and [suppress](#) or remove [truth-tellers from important positions](#), thus, simply having expert advisors does not cut it; to some degree, both voting populations and politicians will have to take seriously the need for familiarity with pandemic response; voters should be choosing those with a demonstrated and committed deference both to experts and to self-learning and voters must then hold those leaders accountable; if they do not, they will be rewarding non-seriousness with high office, encouraging other politicians to follow suit. These are, after all, the basics of democracy, and if voters do not reward competence, seriousness, and expertise, a great many of them will, to some degree, reap what they sow after failing in their role as citizens. In this time of pandemic, [for Masha Gessen](#), "it's very important to continue to notice the ways in which our government is failing us, even if those ways have become familiar and exhausting." The hope is that this pandemic will teach voters to take their votes more seriously, [as George Packer recognizes](#): "We can learn from these dreadful days that stupidity and injustice are lethal; that, in a democracy, being a citizen is essential work; that the alternative to solidarity is death. After we've come out of hiding and taken off our masks, we should not forget what it was like to be alone."

Brooks [agrees that](#), ultimately, we as citizens in a democracy are the ones who are responsible:

Everything that goes wrong in China with this virus is directly laid at the feet of Xi Jinping. He has all the power, so he has all the responsibility. Every death is on his hands.

But, by the same token, we are responsible for our *own* deaths in this country. If we don't like our leaders—well, then, look in the mirror; we put them there. We voted for them. If we don't like the way the CDC is handling this virus, well, who voted to defund the CDC? Who didn't listen to the cries of health professionals saying, "Wait a minute, they're defunding the CDC!"? We didn't listen. We were like, "Oh, my god. *Friends* is on Netflix. I have bingeing to do! I have things! There's an app where I can put bunny ears on myself and send it out!"

In a dictatorship like China, you can blame the top. In a democracy, in a republic, we have to blame [who we see in] the mirror.

But the main national election is still a while away as the pandemic rages. Given the systemic failures, just allowing the military to take over the response [is tempting](#)—whether now or in the future—and while that carries with it its own issues, it is clear the current civilian structures do not have the capacity

to handle this type of threat, except maybe if our leaders are *extraordinary*, and most of the time, that is not the quality of leadership we empower.

At the same time, coronavirus is exposing the military's own shortcomings within itself, with Army Reserve Capt. James Long [noting in another MWI piece](#) that "our lack of preparation, in the form of adaptive digital networks and robust connective tissue with civilian partners," is further adding to the damage being done by the virus. And, while Dr. Jacob Stoil and Army Maj. Bethany Landeck noted in [an additional MWI article](#) that, in past major wars, large-scale epidemic response was an important part of U.S. military operations, that has not been the case for decades. Thus, though the civilian apparatuses have in many ways failed in the current crisis, we cannot expect the current military to be a replacement. This sentiment is echoed in [yet another MWI piece](#) penned by U.S. Air Force Center for Strategic Deterrence Studies Director Al Mauroni titled "The Military Is Not the Nation's Emergency Room Doctor." For him, the military should be ready to support civilian efforts in a pandemic, but not to take them over.

In another piece, I will release my proposal to reform the government to put us in a far better position to deal with biodefense: the creation of a Cabinet-level **Department of Pandemic Preparedness and Response (DPPR)**. But for now, we will simply leave this section with a recognition of how woefully inadequate the current structure of the government is to deal with these type of threats and how dependent the it is on having exceptional leadership that is able to quickly make all the right decisions on an ad hoc basis, an overall unlikely outcome.

VII.) Epilogue: Coronavirus and History, Russia and Italy, the War for Reality, and the Nexus of It All

We will never find an explanation...for the evils done by people against other people, or for the love that drove the doctors to bring smallpox to an end. Yet after all they had done, we still held smallpox in our hands, with a grip of death that would never let it go. All I knew was that the dream of total eradication had failed. The virus's last strategy for survival was to bewitch its host and become a source of power. We could eradicate smallpox from nature, but we could not uproot the virus from the human heart.

—Richard Preston (author of *The Hot Zone*), *The Demon in the Freezer* (2002)

Eradication

It was one of the most inspiring moments of the entire Cold War.

In what [has been acknowledged by many](#) to be “the single most important triumph of public health in human history,” on December 9, 1979, the WHO certified smallpox eradicated from nature, and, to much fanfare at the May, 1980 session of the World Health Assembly (the WHO’s governing body) formally celebrated this achievement publicly with a unified declaration acknowledging the singular triumph. The disease—terrorizing humanity [for thousands of years](#) and responsible for more deaths than any single other disease—may have wiped 300-500 million people in the twentieth century alone, but now, no more.

This triumph was the culmination of two decades [of effort](#) from the global healthcare community led by the WHO, first with an effort inspired and proposed by a top Soviet scientist in 1959 that fell far short, with [many very skeptical](#) that any disease could be “eradicated,” so support for the efforts [was lukewarm and halfhearted](#). Still, the effort did drastically reduce infection and mortality of the disease. Some did not give up on the dream of [total eradication](#), though. A second effort picked up where the first faltered, with the Intensified Smallpox Eradication Program beginning in 1967, a year in which [some two million died](#) from the disease out of 10-15 million cases (rapid vaccination saved many infected before symptoms worsened, reducing the death rate, and these figures were down from [some 50 million](#) cases annually in the 1950s).

For the next decade, doctors and medical staff scoured the globe—braving even natural disasters and civil wars—to find all cases of smallpox and then ring-vaccinate everyone around the cases, much like cutting down trees in a forest on fire to stop the spread of the fire. The technique worked extremely well, and [the last recorded case](#) of naturally-occurring smallpox in world history was in 1977 in Somalia. The following year, another person died because of a mishap at a university lab that was studying

smallpox. Efforts were kept up to keep the virus from making a comeback, and they were successful: by the end of 1979, the virus was certified to be extinct from nature—the first and last disease thus far to suffer that fate—and there has not been a known case since.

In [the words](#) of Richard Preston, those carrying out the campaign

had forged themselves into an army of peace. With a weapon in their hands, a needle with two points, they had searched the corners of the earth for the virus, opening every door and lifting every scrap of cloth. They would not rest, they would not stand aside, and they gave all they had until variola [i.e., smallpox] was gone. No greater deed was ever done in medicine, and no better thing ever came from the human spirit.

At the height of the Cold War, the two rivals tearing the world apart—the United States and the Soviet Union—came together to lead one of the great services for humanity that history has ever known. Two bitter foes that were constantly threatening each other with nuclear annihilation proved that, even amid the greatest of disputes and tensions, enemies could still work together to make the world a better place, to save lives and put their common interest and those of humanity as a whole ahead of their differences. There are few examples in history of anything like this, and nothing that matches the amount of lives saved by this common effort during a global geopolitical conflict between the two lead actors.

Eventually, smallpox would only be *officially* preserved in two facilities: America's CDC in Atlanta and Russia's Vector Institute (the Russian State Research Center of Virology and Biotechnology VECTOR that was a major facility of the Soviet biowarfare program known, as discussed, as Biopreparat) in Koltsovo, Russia, the top government disease research facilities in America and Russia, respectively.

By the time Preston would write his 2002 book on smallpox, [The Demon in the Freezer](#), the then-top scientist at the United States Army Medical Research Institute of Infectious Diseases (USAMRIID, at Fort Detrick, Maryland, where the U.S. earlier had located a big chunk of its now-defunct biowarfare program), Dr. Peter Jahrling (played by Topher Grace in last year's [NetGeo miniseries](#), [The Hot Zone](#), based on Preston's book), would frequently quip: "If you believe smallpox is sitting in only two freezers, I have a bridge for you to buy. The genie is out of the lamp."

Weaponization

As mentioned earlier, since the Eradication and at the end of the Cold War, because of high-level defectors from Biopreparat, the world learned that the Soviet Union even at the height of the Eradication has a massive biowarfare program that included smallpox, and the Soviets were not the only ones pursuing bioweapons and smallpox stocks, also as discussed earlier. Additionally, it became clear that the Soviets were working with smallpox outside the designated Vector Institute.

At the same time, with the increasing concerns about global warming in the 1990s, we get into the possibility of [smallpox in the bodies](#) of long-dead victims frozen in the now melting tundra permafrost, smallpox that [could be unleashed](#) and infect yet again from nature.

But the main concern is not the tundra smallpox.

Now we see how the Soviets got their lamp and genie.

We learned from the highest-level Biopreparat defector (Col. Kanatjan Alibekov, now “Ken Alibek”) that when there were raging epidemics of smallpox in India during the Eradication in the 1960s, the Soviets had a medical team operating there in 1967, helping to push back the spread of the disease there. That team was [accompanied by agents of the K.G.B.](#), the Soviets’ notorious intelligence and security service. They were [on a mission](#) to find a particularly nasty strain of smallpox, which they did in 1967, bringing the super-sub-strain—known as India-1 or India-1967—back to the Soviet Union with them. This sub-strain was a [far more virulent and stable](#) sub-strain than other strains of *variola major* (already the far deadlier of two main smallpox strains, the weaker one being *variola minor*) and one that has a far shorter incubation period and was harder to diagnose, making it ideal for bioweapons relative to existing *variola major* stockpiles the Soviets had at the time. Within a few years, India-1 was their flagship strain for smallpox bioweapons, with twenty tons of it being produced every year to keep it as fresh and deadly as possible.

The K.G.B has used the well-intentioned Eradication program as a cover to find the raw materials for a nightmare bioweapon, and it succeeded in keeping this secret from the West for two decades, during which it carried out intense research, development, and [testing](#) with the sub-strain.

We should still be thankful for the visionaries and dedicated health professionals from the Soviet Union who helped make Eradication a reality, and for the Soviet Government’s generous donations of enormous amounts of smallpox vaccine to fuel the effort. The sincerity of these health workers should not be questioned.

However, as is so often in the world, even where there are good actors and motives, there can be bad ones right alongside them, and this was the case with the Soviet Eradication effort. As Preston notes:

We will never find an explanation...for the evils done by people against other people, or for the love that drove the doctors to bring smallpox to an end. Yet after all they had done, we still held smallpox in our hands, with a grip of death that would never let it go. All I knew was that the dream of total eradication had failed. The virus's last strategy for survival was to bewitch its host and become a source of power. We could eradicate smallpox from nature, but we could not uproot the virus from the human heart.

2020: A Year of Threat Convergences

If we jump forward to Italy now during its terrible coronavirus outbreak, we may be seeing a repeat of history.

As noted earlier, [Italy was requesting](#) U.S. assistance from our troops stationed there since World War II because we had not been proactive in offering help to our beleaguered NATO ally. But President Vladimir Putin of Russia beat us to the punch, embarrassingly preempting significant [U.S. military aid](#) by nearly a month and one-upping us in a public relations nightmare by sending a military medical aid convoy to Italy, to much Russian fanfare and broadcast constantly with gusto by Russian media to the rest of the world. The mission was dubbed “From Russia with Love” (sharing a title with [one of the most famous](#) James Bond films and novels) with that phrase written in Italian on a graphic of two hearts—one colored in the colors Russia’s flag, one in Italy’s—placed on the Russian military vehicles delivering the aid. “From Russia with Love” was also, tellingly, written on the graphic in English *above* the Italian even though the aid was being delivered to Italy. In the wider context of the [geopolitical tug-of-war](#) for

Europe [between Russia and the U.S.](#), Russia [scored another win](#), again beating the U.S. in a form of unconventional, asymmetric warfare.



Russian Defence Ministry

But not all was as advertised.

The highly respected Italian daily *La Stampa*—one of Italy’s oldest newspapers—[did some digging](#), and found that, according to anonymous Italian government officials, the aid Russia sent was not particularly helpful and the whole effort was more about public-relations and an effort to [undermine NATO](#), with [one official saying that](#) “Eighty percent of Russian supplies are totally useless or of little use to Italy” and two Italian military officials echoing that sentiment.

Unsurprisingly, the Russian Defence Ministry directly attacked and seemed to threaten *La Stampa* and the journalist behind the story, Jacopo Iacoboni, calling his story “fake news,” making sure to post the smear [in English](#). Even in this delicate situation, the Italian Defense and Foreign Affairs Ministries, while thanking Russia for its aid, [condemned](#) the Russian Defence Ministry’s attacks on the Italian free press. The mission is now winding down, seemingly [not having been very effective](#).

The disinformational, propagandistic aspects of the whole operation only became more evident when Italy revealed that it had received only 150 ventilators from Russia (not the 600 the Russian Ambassador to Italy claimed) and [mysterious WhatsApp groups](#) surfaced offering 200 euros to Italians to make and post videos praising the Russian “aid” effort on Facebook, Twitter, and Instagram (less but still some money for posts with just text).

Along with the aid, [Russia sent over 120 of its top officers](#) from one of Russia’s main Radiological, Chemical and Biological Weapons Defense (RChBD) military units. If one buys Russia’s stated aim for this outing, it is somewhat strange that it sent biowarfare specialists to Italy, which is supposed to have

some of the best personnel, equipment, and expertise in when it comes to nuclear, biological, and chemical unit capacities. The unit is also suspiciously being led in Gen. Sergey Kikot, the number-two commander of all of Russia's RChBD forces.

Gen. Kikot is perhaps most famous internationally for being one of Russia's most prominent [disinformationists](#) and apologists for Assad's regime as part of Russia's [overall Syria disinformation operations](#) and [support for Assad](#), with Kikot issuing [strong denials](#) that Assad used chemical weapons against his own people and that the White Helmets—the [brave Syrian civilian volunteers](#) who [try to save other civilians](#) in the [immediate aftermath](#) of Syrian regime and Russian military attacks—were staging fake footage of such attacks, [absurd statements](#) which [have gone](#) against the [findings](#) of NATO allies, [experts](#), human [rights](#) groups, and [watchdogs](#), including the United Nations-associated Organisation for the Prohibition of Chemical Weapons (OPCW), the chief international chemical weapons inspections authority.

It would be [unthinkable in this kind of a situation](#) for [there not to be intelligence officers](#) from Russia's military intelligence branch, the [G.R.U.](#), embedded within Russia's unit in Italy. In this case, being deployed in a NATO country during a pandemic is an invaluable opportunity for [intelligence collection](#) and even for intelligence operations.

But it is also worth noting that the G.R.U. is often the tip of Putin's spear in both the Kremlin's conventional and unconventional operations. The [G.R.U. has been active](#) on the ground in Russia's invasion, occupation, and illegal annexation of Crimea and its support for rebels in Eastern Ukraine. It also has had its commandos—Russia's elite Spetsnaz special forces—play [important roles on the battlefield in Syria](#), including in Aleppo and Palmyra; it was even overseeing the Russian [mercenaries who attacked](#) a joint U.S.-S.D.F. position in Syria in February, 2018. Furthermore, the G.R.U. has been one of Putin's [point organizations](#) in his war on Western democracy, engaging in [cyberwarfare](#), destabilization, and disinformation efforts [against NATO countries in Europe](#) and [other U.S. allies](#), in addition to its [infamous efforts against](#) the U.S. [during the 2016 election](#) (what I have called the [First Russo-American Cyberwar](#)).

But when thinking about why elite Russian biowarfare specialists and G.R.U. intelligence operatives would be in Italy, we should perhaps think less about 2016 and more about 1967, when the K.G.B. accompanied medical teams to India during the Smallpox Eradication Program.

The G.R.U. is one of the successor agencies to the K.G.B.

It is uncertain what all the precise activity the Russian biowarfare units and any G.R.U. operatives in Italy have been up to, but this scenario seems awfully familiar. Whatever their purpose, this whole episode should serve as a reminder of the ability of the Russians to see unconventional opportunities in all situations, including public health crises, and to reinforce how unprepared we are in general to stand up to such efforts. Years from now, we hopefully will not be caught off guard if we discover the Russians have engineered some sort of supercoronavirus, nor, on a far simpler level, allow Russia or another rival to upstage our efforts to assist *our* allies and friends abroad during a pandemic.

We also must hope that we are better prepared here at home in a far deeper sense than adding to and reorganizing our federal government's organizational chart. My soon-to-be-released proposal for a

Cabinet-level Department of Pandemic Preparedness and Response would be a major leap forward in a big-picture national policy sense, but there is so much more that needs to be done throughout our society. For it was not just our government that failed us, but different aspects of our media, our business sector, our religious institutions across faiths, celebrities and various other elites, plenty of rank-and-file Americans along with them, our very culture itself. And it is the societal failings that are embedded deep in our society that have not only been major factors in making our response to COVID-19 so shockingly poor, but have also have contributed significantly to many of our failures in unconventional, asymmetric warfare over decades. It is those societal failings that were so brilliantly exploited by Russia in 2016, too, but Russia has also used our weaknesses to help amplify and perpetuate our failing coronavirus response, finding plenty of existing conspiracy theories, mistrust, and hate in America to amplify and plenty of Americans willing to believe and peddle Russia's own false narratives, whether in 2016 or today in our current coronavirus climate.

In other words, at each step of the way, millions of Americans were gleefully along for the ride, the very definitions of useful idiots, taking Russia's disinformation and making it their misinformation. That is happening even now, in our 2020 election.

Putin is himself former K.G.B., and part of his genius is that he and his intelligence-crowd's longstanding K.G.B.-inspired techniques accurately assessed our domestic weaknesses, figuring out how to magnify many of them with their own operations in a variety of settings, from elections to pandemics: they look for anything and anyone that will help divide America and make us weaker, with this pandemic just being a "gift" of an opportunity for the Kremlin.

America certainly had its own strains of ignorance without any Russian meddling (to quote the great J. G. A. Pocock, "it is notorious that American culture is haunted by myths, many of which arise out of the attempt to escape history and then regenerate it"), but Russian disinformation and cyberwarfare thrives on this ignorance. As part of Moscow's campaign to knowingly falsely blame the U.S. for a multitude of things—from the downing of civilian airliner MH17 (shot down over Ukraine in 2014 by a Russian missile given by Russia to pro-Russian Ukrainian separatists_ to the 1986 Chernobyl nuclear disaster in the then-Soviet Union—Russia is now blaming the U.S. for engineering the coronavirus as a bioweapon (or sometimes 5G is to blame; yeah, the Russians are a huge part of that, too). This follows similar efforts to blame the U.S. for spreading Ebola, HIV/AIDS, even swine flu. The Kremlin has also been boosting America's dangerous anti-vaxxer movement. Overall, when it comes to health, Russia has engaged in campaigns to stoke Americans' fears of diseases, make us more susceptible to disease, and weaken our overall trust in U.S. healthcare and medical expertise, trust that is essential for any kind of response to a public health crisis in a democracy to be effective.

The same organs of disinformation behind Russia's "firehose of falsehood" (to quote a RAND report) for all recent disinformation campaigns are being utilized in this latest coronavirus campaign, and, like the other campaigns, it is achieving results: a recent Pew study showed that close to a third of Americans believe in the totally unsubstantiated conspiracy theory that coronavirus was man-made in some sort of lab and is not natural, with one quarter saying they are not sure either way. To be fair, top elements of the Trump Administration are pushing an unfounded conspiracy theory that the new coronavirus was created in a Chinese lab in Wuhan, where the outbreak originated, and China has been joining Russia in promoting the idea that the U.S. is behind the virus. While the survey does not specify where the virus originated or who was behind it, the right-wing in America has been pushing the Chinese lab theory and,

as noted earlier, [anti-Semitic explanations](#) and sentiments [regarding the virus](#). The Chinese lab theory is now favored by the president himself, along with [Sec. of State Mike Pompeo](#) and top Trump trade and China advisor [Peter Navarro](#). Apart from [numerous](#) and [varied](#) other [widespread](#) [disinformation campaigns](#) and [misinformation vectors](#), very active and present Russian disinformation still makes up an important portion of the overall disinformation being bandied about, contributing to an overall atmosphere of conspiracy, distrust, confusion, fear, and just plain bad information, casting doubt and adding more non-reality based noise to the conversation, so regardless of whether Americans—who are being [widely exposed](#) to these [conspiracy theories](#)—are convinced by Russian propaganda or not that the U.S. that “created” the virus, the Russian efforts still contribute substantially to a deteriorating informational climate. Specifically, these efforts further feed an atmosphere suggesting specifically that coronavirus was created in a lab *somewhere* while generally helping to saturate that atmosphere with bad information, muddying the waters and obfuscating the truth for many Americans. It certainly does not help that the top current U.S. political leaders and many lower-level politicians in addition to media outlets in the country are embracing similar false theories even if the culprits “making” the virus vary. And three other factors serve as additional amplifiers poisoning the atmosphere here: that [Americans are increasingly subscribing](#) to fantastical conspiracy theories in general, that conspiracy theories are more attractive and powerful [in times of crisis](#), and that [studies confirm a large portion](#) of Americans are simply bad at discerning fact from fiction and are easily confused.

These dynamics are as good as any at illustrating how Russian efforts and homegrown efforts and attitudes play together like a symphony orchestra performance conducted by Putin to play to his ends. The last concert he conducted, with his Kremlin Symphony Orchestra performing original Putin works, did not go very well for us, and this new one could very well be worse.

In the midst of Russia’s coronavirus disinformation and [2020 election interference](#) efforts [targeting the U.S.](#), as another example of both ends feeding into Russian interests, the Trump Administration allowed Russia—even as [a hostile actor](#)—to [deliver coronavirus aid to us on American soil in a publicized way](#), a shocking yet [par-for-the-course](#) act for the current administration.

And so Russia keeps up its public relations stunts and disinformation, hoping to deflect attention from incriminating events at home as [coronavirus infections soar](#) to make Russia alternate with Brazil as the third and [second-most infected country](#) in the world even by the official numbers, with the reality being that [there are](#) virtually certainly [government efforts to suppress](#) a far [grimmer actual toll](#) (some medical staff are [reportedly being instructed not](#) to record coronavirus deaths as caused by coronavirus). There have even been [three Russian medical professionals questioning](#) or distraught by Russia’s [coronavirus response](#) who “fell” [out of windows](#) in just [two weeks](#), two dying and one critically injured; such “accidents” or worse tend to befall [a wide variety](#) or [whistleblowers](#), [journalists](#), [critics](#) of the Putin, and [others](#) Putin [wants to make disappear](#).

What will not disappear are the threats posed by Russian disinformation, cyberwarfare, election interference, and the Kremlin’s undisclosed biowarfare program.

Unless the U.S. has since obtained direct and continued intelligence on the exact nature of the genetically engineered strains and man-made Frankenstein viruses described by top defectors—highly unlikely—it is almost certain that the U.S. would be defenseless against such bioagents deliberately

designed to overcome existing vaccines, medicine, and treatment. Looking at how much coronavirus has crippled the U.S., if America was not able to work on specific remedies designed to counter these Russian superagents by directly studying them over time directly and rigorously testing biodefense measures—new vaccines, medicine—against these new agents, it would be impossible for us to come up with anything that could effectively protect Americans from them, let alone have the remedies mass-manufactured and ready for distribution and safe usage. A first strike with such weapons would likely be the only strike necessary to incapacitate most of America's defenses and to destroy America as we know it. As discussed, apocalyptic-minded bioterrorists would be more likely to use a nightmare bioweapon. Yet however unlikely such a strike from a state like Russia would be, being ill-prepared will only increase that likelihood.

The current international Biological Weapons Convention (BWC) treaty prohibiting offensive bioweapons and related research—to which Russia is a signatory—is a legal one, but without any verification or control mechanisms. We must absolutely have a more forceful international bioweapons inspections system and use all peaceful means to force Russia into compliance. Ideally, this would be through the United Nations, except Russia will clearly veto such binding frameworks and resolutions, or, even if it did not, would surely veto any Security Council efforts to specifically hold Russia to account or to submit to and/or comply with robust inspections. It will instead fall on the U.S., Canada, the EU, Japan, and other allied and like-minded nations to collectively impose their own sanctions on Russia to force compliance or demonstrate a stiff economic price for non-compliance, much like was the case after Russia's invasions of Ukraine's eastern and Crimean regions. Setting an example with Russia would set a proper tone for the unfolding century, and other rogue states would also see the costs of pursuing bioweapons and be more inclined to play by the rules if Russia is brought to heel. And each state that is brought to heel can be part of a mandatory coalition to combat bioterrorism as part of their respective arrangements, with the BWC being rewritten to include robust counterbioterrorism provisions and severe penalties for supporting or failing to act against bioterrorism or for failing to properly secure sensitive materials involving deadly disease research.

A Collective Responsibility to Do Better

The actions suggested just above constitute dealing with unconventional, asymmetric warfare at the highest levels.

But the lowest levels are just as important.

We must also deal with our societal ills that make us so susceptible to disinformation, Russian or otherwise. To a significant degree, preparing for unconventional, asymmetric information warfare and cyberwarfare also prepares us for pandemics, biowarfare, and bioterrorism: at the core of each is a willingness to defer to experts and to cultivate our minds to be able to properly vet what is coming from a position of factual vetting and properly understanding who and what is targeting us to take advantage of our weaknesses, biases, and predispositions. Leaving our minds susceptible to disinformation and misinformation—whether it is about our elections and candidates or our public health system and information on a deadly disease—is like allowing our computer networks to go without security software, allowing our enemies to manipulate us and take advantage of our weaknesses to weaken our nation. Thus, whether dealing with coronavirus, bioweapons, or Russian disinformation, taking concrete

steps to tackle one will often pay off in our fight against the others. And we have little reason to doubt that Russia will [integrate coronavirus into](#) its ambitious 2020 election interference—or, more aptly termed, [Second Russo-American Cyberwar](#)—or doubt that Russia is looking at and developing ways to turn coronavirus into a bioweapon as it did with smallpox and so many other bioagents in the past.

Hence, biosecurity, disinformation security, and election security come together as part of the larger unconventional, asymmetric landscape.

In her conclusion to her must-read article “[Disinformation, Democracy, and the Rule of Law](#),” former FBI counterintelligence agent and current Yale University senior lecturer on national security Asha Rangappa notes the complex, multidimensional aspects of Russia’s unconventional, asymmetric warfare against the United States:

Much of the public discussion on Russia’s disinformation operations in the U.S. has focused on their impact on the 2016 election and how they might affect elections in the future. But the damage that Russia seeks to inflict through its disinformation campaign isn’t limited to electoral contests. Rather, its long-term strategy has been to erode faith in the primary pillars upon which our democracy is based—including the rule of law and the institutions that support it. So far, Russia’s efforts are yielding fruit, and technological and legislative fixes alone will be insufficient to counter them. Defending against Russian disinformation in the long term will require a strategy to fortify America’s social fabric with an understanding of shared civic values that can serve as a prophylactic against Russia’s future attacks.

She makes it all too clear that the government alone cannot save us from the manipulations of Russia’s disinformation and other techniques of division:

The framing of the Russian disinformation threat as a cybersecurity issue makes it tempting to look to the government, or to social media companies, to fix the problem. Regulatory and technological solutions are needed, and may well make it harder for Russia to employ the kinds of information warfare that it used in 2016. But they will not address the fundamental vulnerability which Russia successfully exploited, which is the increasing social and political fissures in society and the resulting erosion of social trust in the U.S. over the past decades.

As a solution, Rangappa exhorts us to shore up the American weaknesses Russia exploits with a rebirth and renewal of citizenship, community, and civic life:

A model to rebuild social capital in America—and strengthen social trust—can feel unsatisfying, since it is intangible, difficult to measure, and disperses responsibility on us, as citizens. At the same time, however, it can be empowering, as it offers a way for Americans to take ownership of a large part of the solution. Russia’s attack on our democracy is an invitation for us to examine our relationship with fellow citizens, and how technology has affected the way we engage with them online and in real life. By reclaiming democratic values that transcend political differences, and leveraging the most effective vehicles we have to disseminate them (including social media!), the U.S. can generate an immunity to Russia’s destabilization efforts which will endure over the long term.

In [the syllabus for one](#) of her classes that is very much an extension of her essay, Professor Rangappa provides a road map for the way forward with a robust list of materials, including:

- 1.) Orwell's legendary 1984 (to [help bolster](#) our [defenses against](#) not only totalitarianism and groupthink but also Orwellian disinformation and the manipulation of language so endemic in its use by troublemakers both at home and abroad)
- 2.) The singular de Tocqueville's ever-[relevant](#), ever-[insightful](#), ever-enduring *Democracy in America* (to [understand](#) our unique historical strengths and weaknesses and [how they have factored](#) into our democracy)
- 3.) Amu Chua's *Political Tribes*, [an account](#) of American tribalism ([a force](#) that we [must understand](#) and [fight against](#) more effectively, as [it is tearing](#) our country [apart](#))
- 4.) Robert Putnam's seminal *Bowling Alone* (to understand [how important social capital](#) and civic engagement are in creating and maintaining a [strong society](#))
- 5.) The documentary *Active Measures* (to properly understand [the methods](#) by which Putin is [attacking and harming](#) our democracy)
- 6.) *Schoolhouse Rock* (the episodes on [American government](#) and [history](#), to show how learning about civics can be fun and also appeal to young Americans)

Professor Rangappa's cocktail of learning is a foundation for a national societal strategy:

- 1.) Understand how anti-democratic forces work to distort reality and language, along with rewriting history, in a war on reality we have to win
- 2.) Know ourselves from an objective perspective (the good, the bad, and the ugly)
- 3.) Understand how corrosive our own tribalism in America is and how we can fight it even before taking into account foreign efforts to exploit it
- 4.) Gain a newfound appreciation for social capital and civic engagement so that we can restructure society to prioritize these vital pillars of healthy democracy
- 5.) Know our chief foreign enemy, Vladimir Putin, and his methods, as well as how and why he has been successful in damaging America
- 6.) Remember how important it is to start with civics and understanding our history and system overall and at a young age so that we may revive our moribund civics curricula for all American students going forward

Ultimately, such a strategy and priority-resetting will help us revive and further realize our Founding Fathers' vision for America.

Virtue, then, along with biodefense and information warfare, is also a national security issue.

If you are rolling your eyes a bit with the serious suggestion that "we as individuals must be better and do more," know that this consideration of virtue was of primary concern to the Founding Fathers and many great men before and after them. They might not have used the term "national security" the way we do and I just did, but it was still a primary national security issue for our Founders nonetheless.

Few have articulated this sentiment as well and with such authority, and perhaps none better, than [James Madison himself](#)—eventual fourth president and architect and overall author of the U.S. Constitution—when he was making the case to the public in 1788, in writing and anonymously, for the adoption of that Constitution in *The Federalist*, in "[No. 55](#)," to be exact:

As there is a degree of depravity in mankind which requires a certain degree of circumspection and distrust, so there are other qualities in human nature which justify a certain portion of esteem and confidence. Republican government presupposes the existence of these qualities in a higher degree than any other form. Were the pictures which have been drawn by the political jealousy of some among us faithful likenesses of the human character, the inference would be, that there is not sufficient virtue among men for self-government; and that nothing less than the chains of despotism can restrain them from destroying and devouring one another.

In other words, “We the People” must be worthy enough as a people—enough of us individually so that it is true in a collective sense—or this whole democracy thing is not going to work out so well.

Yes, in the short term, we must act boldly at the highest levels of our government and international bodies to prepare for the next pandemic and our first major bioawarfare or bioterrorist attack. But in the long-run, we must fix our ailing society which produced such an unconscionable, unforgivable response to the novel coronavirus in the first place. And as ambitious as [my Cabinet-level Department of Pandemic Preparedness and Response proposal](#) will be demonstrated to be, it will be that second task that will be the far more challenging one.

Cassandra: Even then I told my people all the grief to come.

...

*Aieeeee! —
the pain, the terror! the birth-pang of the seer
who tells the truth —*

*it whirls me, oh,
the storm comes again, the crashing chords!*

...

*Leader[/Chorus]: Poor creature, you
and the end you see so clearly. I pity you.*

—Agamemnon, 1216-1344, by Aeschylus (458 BCE), Robert Fagles translation

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Available as an eBook, *Coronavirus the Revealer: How the Coronavirus Pandemic Exposes America As Unprepared for Biowarfare & Bioterrorism, Highlighting Traditional U.S. Weakness in Unconventional, Asymmetric Warfare*, in [Amazon Kindle](#), [Barnes & Noble Nook](#), & [EPUB](#) editions

About the Author



Brian Frydenborg has a cross-disciplinary background of two decades in humanitarian aid/relief, international development, international affairs, government, public policy, politics, writing, journalism, research, and consulting. He grew up in a suburb of New York City called Weston, Connecticut, and attended Canterbury School in New Milford, CT. As an undergraduate at Washington and Lee University, he engaged in a rigorous double major program of Politics and History. His main abroad experience in college was in Japan, but he also had more minor experiences in Cuba and Europe. Upon graduation, he volunteered for several political campaigns in Boston, including the 2004 Democratic National Convention, where a chance meeting with then-Senator Joseph R. Biden, Jr., and his Chief-of-Staff eventually led to an internship in the Senator's Washington, DC, office in 2006.

After doing substantive work in the United States Senate while just an intern, and after some time in the private sector, he began his graduate studies at George Mason University's School of Public Policy. While also working part-time, he completed his Master of Science (M.S.) in Peace Operations, with his program defining a peace operation "as an intervention into a complex contingency [due to conflict and/or natural disaster] for the purpose of maintaining or restoring peace." The completion of his degree included studying abroad in Liberia—evaluating the United Nations Mission in Liberia (UNMIL)—and also included studying abroad in Israel and the West Bank, Palestine, examining the conflict there.

During 2014-2019, he was based in Amman, Jordan, freelancing mainly as a writer and a consultant, a career in which he recently has had well about 200 articles published by a wide range of different outlets, including *Newsweek*, *The Jerusalem Post*, the Modern War Institute at West Point, The London School of Economics and Politics Middle East Centre, *Real Clear Defense*, *Real Clear History*, *The Jordan Times*, *MSN*, *Venture Magazine*, *Al Bawaba*, *Business Insider*, *Small Wars Journal*, *Iranian Student News Agency*, *War Is Boring*, *Mic*, *Movie Pilot*, the Russian International Affairs Council, Global Risk Insights, *Medium*, *Hidden Remote*, *Dork Side of the Force*, *Winter Is Coming*, and others in addition to his own *Real Context News*, and has also been cited in *Harvard Law & Policy Review*, *Radio Free Europe/Radio Liberty*, *USA Today*, the Istituto Affari Internazionali, the Foundation for European Progressive Studies, among others. He furthermore had an academic book chapter published: "[The Roman Republic in Greece: Lessons for Modern Peace/Stability Operations](#)" and also just recently authored the eBook *A Song of Gas and Politics: How Ukraine Is at the Center of Trump-Russia*. He can be found on Twitter (follow him there at [@bfry1981](#)) and also on linked [LinkedIn](#). You can support *Real Context News* and Brian's work [here](#).