Research Notes

Terrorism and COVID-19: Actual and Potential Impacts

by Gary Ackerman and Hayley Peterson

Abstract

The COVID-19 pandemic presents both challenges and opportunities for terrorists. While the hazards of the disease and disruptions to society inhibit some of their operations, by their very nature as asymmetric adversaries, terrorists tend to adapt quickly and exploit conditions of uncertainty and instability to further their goals. This Research Note provides a preliminary overview of how COVID-19 might affect the state of contemporary terrorism. In so doing, it introduces and discusses 10 different ways that the pandemic could impact the terrorism landscape in the short, medium and long term. These range from terrorists leveraging an increased susceptibility to radicalization and inciting a rise in anti-government attitudes, to engaging in pro-social activities and even reconsidering the utility of bioterrorism. Acknowledging the publication of this Research Note in the midst of the pandemic and its necessarily speculative nature in the absence of historical precedent, the discussion nonetheless seeks to draw attention to several possible pathways along which terrorism might evolve in response to COVID-19 and its attendant societal effects.

Keywords: CBRN, pandemic; COVID-19; radicalization; bioterrorism; emerging threats

Introduction

As the SARS-CoV-2 virus spread inexorably across the globe in the early months of 2020, the pandemic it generated has caused unprecedented disruption to the connected, just-in-time world of the early 21st century. Politicians appear bereft of answers, the global economy has become moribund while common people the world over have been subjected to lockdowns, social distancing and an interruption in the normal routines of life. When it comes to terrorism, as much as some would like to paint terrorists as some type of aberrant "other", the truth is that they are spawned from and almost always reside, or at least operate in, our societies. Insofar as they form part—albeit a violent, extremist and unlawful part—of our societies, terrorist individuals and groups, just like everyone else, will thus necessarily be affected by the pandemic and the general social disruption it has wrought. At the same time, by their very nature as asymmetric adversaries, terrorists tend to be markedly adaptive actors, seeking to leverage any vulnerabilities they perceive in their environment. They have often proven particularly adept at exploiting conditions of uncertainty and instability to further their goals. It can be expected, therefore, that the more strategic and tactically adroit amongst today's terrorist adversaries will attempt to gain whatever advantage they can from the COVID-19 pandemic. The potential obstacles and opportunities presented to terrorists by the pandemic are thus worthy of careful and prompt consideration. This is especially pertinent given the possibility that COVID-19 is likely to have second-order effects, in addition to immediate impacts, on global affairs.

This Research Note seeks to provide a preliminary overview of how COVID-19 might affect the state of contemporary terrorism, with the acknowledgment that we are still in the midst of the pandemic and additional consequences might yet emerge. The first thing to realize in this regard is that to a large extent we are in uncharted territory. The last time the world experienced a pandemic as global and consequential as the one caused by COVID-19 was during the 1918–1919 influenza pandemic (often erroneously referred to as the "Spanish Flu"). At that time, several decades before the so-called "modern" age of terrorism, the United States in particular did witness a rise in attacks by anarchist followers of Luigi Galleani, culminating in the devastating Wall Street bombing of September 16, 1920.[1] However, the increased spate of bombings had begun before the pandemic and was more closely linked to opposition to the First World War, making any direct causal connection to

the pandemic tenuous at best.[2] The 1918–1919 pandemic is, however, associated with a number of broader sociopolitical changes, several of which are potentially relevant to the current discussion and will be addressed below.

The historical record therefore does not offer much in the way of direct guidance and, in the absence of extensive empirical evidence, we are forced to rely mostly on inference. Our assertions can be informed, however, by our existing understanding of terrorist psychology and ideology, past terrorist conduct in (somewhat) comparable situations, and the relatively few observations of terrorist behavior that have come to light so far during the pandemic. Nevertheless, our analysis must necessarily tend towards the speculative, at least until sufficient time has passed to robustly test our arguments with observed data.

Before proceeding, we return to the idea that the general social upheaval caused by the pandemic will affect the vast majority of terrorists to some degree. With the possible exception of a small number of completely isolated extremists (mostly associated with fringe millenarian groups or guerrillas based in remote locations[3]), most terrorist organizations and networks will be just as susceptible to infection by COVID-19 and just as disrupted by general social distancing measures and interruptions in supply chains and transportation systems as the rest of the world.[4] The risk of infection by COVID-19 may very well not deter a terrorist attack in its final operational phases—suicide bombers, for example, would not be expected to be overly concerned about getting sick on their way to blow themselves up. Yet, most other elements of terrorist networks, from trainers and quartermasters to ideologues and commanders, will in the vast majority of cases be reluctant to expose themselves unnecessarily to infection, if not due to the innate human psychological aversion to contamination and a regard for their own mortality[5], then for the operational challenges that having multiple ill cadre would pose. In any event, shutdowns, lockdowns and other social distancing measures will tend to inhibit numerous aspects of terrorist operations, from the movement of operatives within and across borders, to the acquisition of vehicles, weapons and equipment.[6] This diminution in the organizational functions of terrorist groups likely extends to at least some, albeit lesser, degree to violent extremist individuals, since even their more limited machinations invariably require a certain amount of travel and logistical activities in the broader society.[7]

In short, the pandemic arguably increases the overall "friction" of terrorist operations, with the extent to which this occurs dependent on the levels of disruption and official control in the location where the terrorists are operating.[8] This argument holds equally for all types of terrorists, from jihadist networks and racial supremacist militias to idiosyncratic misanthropes and hyper-nationalist paramilitaries. That being said, the COVID-19 pandemic does present terrorists with a number of opportunities for expanding, or at least adapting, their activities, both violent and otherwise, and in certain circumstances might even act as a stimulus to action. What follows is an initial attempt to categorize and enumerate the various ways in which the pandemic and its sociopolitical consequences might shape the terrorism landscape in both the short term and beyond. Given the popular predilection for lists, we present a "Top 10" of the most significant potential impacts, although we offer these in no particular rank order of relevance or likelihood.

Effects of COVID-19

1. Terrorists Engaging in Pro-Social Activities

Terrorists groups often seek and obtain some degree of legitimacy by engaging in social welfare and other activities, especially in areas of poor governance. Even if only temporarily or cynically, larger terrorist organizations with specific constituencies appear to view the pandemic as an opportunity to broaden their support—and hence recruitment and funding—in the long term. While most terrorist groups lack the resources to mount full-scale medical responses, even modest efforts can serve to garner positive attention to these organizations and highlight the inadequacies of the local government. Amongst jihadists, Lashkar-e-Taiba and Jaish-e-Mohammed have offered to provide essential services and assistance to people affected by

COVID-19 in Pakistan.[9] In neighboring Afghanistan, the Taliban, which aspires to governance and controls substantial territory, has promised safe passage to healthcare workers crossing their territory, engaged in their own public health information campaign to counter the virus, and reportedly provided some healthcare services.[10] Perhaps the most active efforts have been made by (the not coincidentally most well-resourced) Shi'ite Hizb'allah in Lebanon, which has sought to contrast itself with the dysfunction of the broader Lebanese state by allegedly deploying 1,500 doctors, 3,000 nurses and paramedics, 20,000 more activists, as well as more than 100 emergency vehicles to handle COVID-19 and disinfect public spaces.[11] These groups clearly see the propaganda value of such efforts, for example, when an encrypted channel run by the Iba news network channel which is linked to Hayat Tahrir al-Sham uses images and videos to champion HTS's social distancing and other alleged efforts to address COVID-19.[12] Although most prevalent amongst jihadists, pro-social activities have also been seen amongst other extremist milieus. While the appropriateness of labeling such actors as terrorists is debatable, anarchist networks in the United States have organized free food distribution and mutual aid efforts to help address the social disruption caused by the pandemic.[13] These kinds of prosocial activities have thus far been conspicuous by their absence, however, among terrorists espousing far right ideologies.

2. Increased Susceptibility to Radicalization

The pandemic has resulted in widespread and extended dislocation and disruption to daily lives, in which many people have lost their jobs, or loved ones who provided for them, and are afraid for themselves and their futures.[14] This in turn can lead to low-level underlying psychological symptoms, ranging from increased anxiety to mild paranoia, which are likely to worsen the longer the disruptions continue and can in turn lead to new or resurgent self-destructive behaviors like domestic abuse or substance abuse.[15] Significantly, these uncertainties and psychological setbacks arguably make a greater number of people more susceptible to radicalizing narratives that seek to scapegoat various "others" and promise simple solutions.[16] There is a fair amount of evidence that radicalization is facilitated by actual or perceived personal losses[17], frustrations[18] and reminders of death[19], all of which can be associated with the pandemic. At the same time, with more people spending more time online, there are more opportunities for extremists to engage with their purported constituencies.[20]

The disruptions and stresses arising from the pandemic thus provide fertile ground for radicalization and extremist propaganda. We have already seen examples of terrorist organizations exploiting the pandemic to directly bolster their recruitment efforts. ISIS has used hashtags related to COVID-19 to redirect Internet users to its jihadist propaganda[21], while in Turkey the same group is reportedly focusing its recruitment efforts particularly on migrants from Turkmenistan who have become unemployed as a result of the pandemic.[22]

Then there are the widespread attempts by various extremists, including terrorists, to prey on the uncertainties, anxieties and disruptions caused by the pandemic—as well as a newly captive online audience—in order to feed into and, they hope, broaden the appeal of their narratives. Sunni jihadists have either claimed that COVID-19 is a plot by Islam's enemies, or like al-Qa'ida and ISIS, have painted COVID-19 as an example of Allah's wrath against the corrupt and the nonbelievers that can only be stopped by increased adherence to the "true" Islam. [23] Pro-ISIS groups have also reportedly heightened efforts to disseminate propaganda material specifically in the English language to target vulnerable populations under lockdown orders in the West.[24] In a recent online publication specifically targeting the "Western World", al-Qaeda has sought to encourage conversions to Islam during isolation periods and stay-at-home orders.[25]

At the same time, among the far right, there have been numerous attempts to scapegoat the ostensible "other" for the virus, whether this be the Chinese, the Jews or immigrants in general, often explicitly associating these groups with pestilence and filth in tropes reminiscent of Nazi anti-Semitic propaganda from the 1930s.[26] The stigmatization of foreigners as bringers of disease was also witnessed during the 1918–1919 influenza pandemic[27] and has been repeated during the current one.[28] Several COVID-19 specific memes, such as "corona-chan", have also become popular on far right online discussion forums.[29]

The result of this noxious combination of an uncertain, anxious populace and eager, opportunistic extremists is an observed increase in activity on online extremist platforms. For example, encrypted channels on *Telegram* associated with far-right ideology groups have seen a large growth in users. One white supremacist channel in particular has seen an 800% increase in users during COVID-19, while other similar right-wing ideology channels grew by more than 6,000 users in the month of March alone.[30] Following the implementation of lockdown and social distancing measures in the United States, far-right content and engagement online had increased by 13% and reached a 21% increase in engagement levels 10 days after the lockdown measures began. [31] Far-right extremist groups are not alone in seeing this expeditious growth in their online user base, with ISIS and jihadi channels seeing a similar massive increase in online activity.[32] Attempts by extremist groups to intensify their social media efforts are so prevalent that even U.N. Secretary-General Antonio Guterres acknowledged the phenomenon on April 27, 2020, noting that these groups intend to disseminate their hateful rhetoric to recruit young people in particular.[33]

One particularly pernicious aspect of the lockdowns associated with COVID-19 is that at the same time as socially distanced, anxious individuals might be becoming more susceptible to radicalization, the isolation from others and alienation from normal social intercourse itself means that there is a lower chance that behaviors associated with radicalization will be noticed by others who might otherwise be able to intervene. A senior British counterterrorism official has cited this as a reason why referrals to the United Kingdom's Prevent program have fallen since the country began its lockdown.[34]

3. A Rise in Anti-Government Attitudes

Dissatisfaction with government responses to COVID-19, exacerbated by conspiracy theories peddled by a range of parties, is likely to accentuate existing levels of frustration and stoke anti-government extremism in particular. The first leg of this argument is based upon the generally reactive, often haphazard and sometimes blatantly incompetent response of governments around the world to the pandemic.[35] This has no doubt undermined public confidence in ruling regimes and, in places with already poor governance, has likely served only to erode the government's legitimacy even further. It is interesting to note that recent preliminary findings have discovered a link between areas most affected by the influenza pandemic of 1918–1919 and increased support for the Nazis in Germany in subsequent elections in the early 1930s.[36]

The second leg on which this notion rests lies in how those extremists whose ideology is particularly hostile to the state have pounced on government missteps to exacerbate levels of popular frustration, which, as noted above, is often associated with aggression. Extremists are doing this using a maelstrom of disinformation and conspiracy theories.[37] There has been a particularly colorful array of such theories stemming from far right extremists in North America and Europe, with supporters of the mysterious online activist group QAnon asserting that China, Bill Gates, Big Pharma or others are responsible for creating the coronavirus (sometimes involving an obscure chemical called adrenochrome) and that anti-COVID-19 measures are a plot by the "Deep State".[38] In the United Kingdom, a prominent theory amongst the far right (and some on the far left) is that 5G transmission towers are somehow responsible for spreading COVID-19.[39] These types of anti-government conspiracy theories are not limited to the far right-many on the far left of the political spectrum spin theories about how government responses to the virus, and potentially the virus itself, are merely facades for protecting or further empowering corporate elites and their authoritarian government allies.[40] Such conspiracy-mongering is not harmless—even if it does not result in new recruits for recognized terrorist groups, it can still mobilize extremist fellow travelers. This was demonstrated when, in early April 2020, train engineer Eduardo Moreno purposely derailed a train in hopes of crashing it into the U.S. Navy Hospital Ship Mercy, which was docked at the Port of Los Angeles. Moreno claimed that he wanted to draw attention to a COVID-19-related conspiracy, possible one espoused by some QAnon activists that Mercy was taking COVID-19 victims to Guantanamo Bay in Cuba.[41]

The final leg supporting an argument about the rise of anti-government extremism in the wake of COVID-19 references the recently witnessed pointed opposition to the expansion of the state into everyday life via

lockdowns and other restrictive measures. The atmosphere has become more heated following the killing of the African-American George Floyd by a policeman in Minnesota, which has set off large demonstrations around the world, despite the coronavirus restrictions on public gatherings. The opposition of those with antigovernment animus is likely made more acute when the government response includes mobilizing large numbers of people in uniform; in this regard, the deployment of the National Guard in several states in the USA can be expected to particularly inflame anti-government extremists. Here is one instance where the present echoes the past—during the 1918 influenza pandemic, an Anti-Mask League was formed in the United States, which organized large public protests and reportedly even led some opponents of enforced mask-wearing to attempt the bombing of a public official. [42] During the current pandemic, so-called Liberate activists have protested widely in the United States against local or state shutdown orders, with one person espousing anti-government animus arrested for threatening to kill New Mexico's governor and another for allegedly threatening to blow up the Orlando Police Department's headquarters, both over the coronavirus restrictions.[43] Opposition to coronavirus restrictions also seems to be stimulating emerging strands of far-right extremism, such as the burgeoning "boogaloo" movement. Similar opposition has occurred in Europe.[44] This overall dynamic of increased opposition to the state might intensify as the economic repercussions of the pandemic persist over longer periods of time and the governments in many states fail to relinquish the enhanced emergency powers they granted themselves during the pandemic.[45]

4. Inspiration for Apocalyptic-Millenarian Extremists

Rather than merely looking for opportunities to turn the pandemic to their advantage, a small percentage of terrorists might actually be inspired by the spread of the virus and the death and disruption that it has left in its wake. Among groups whose ideologies have a distinct apocalyptic or millenarian flavor, there are both those who believe that they must merely passively prepare for the end and that no other actions on their part are necessary, as well as the more dangerous sort who believe that when the time is right they must act to facilitate or even initiate their version of Armageddon in order to secure salvation. These latter types, typified by groups like Aum Shinrikyo and the Covenant, the Sword and the Arm of the Lord, might regard the current global pandemic as a portent of the prophesied end times or perhaps a sign of their deity's wider displeasure with humanity. The pandemic, which is evocative of biblical plagues and divine punishments, might then act as a catalyst for these groups to initiate whatever long-term plans they have been hatching, some of which might include violence against the public. [46] Within the current terrorist context, besides the stereotypical cults that might have flown under the radar [47], other candidates for being galvanized into action by COVID-19 are the most extreme elements of the radical environmentalist movement [48] and jihadists like ISIS, whose worldview contains strains of millenarianism. [49]

5. Terrorists Working from Home

With widespread stay-at-home orders and extended disruption to normal societal operations, terrorists (just like many of us) may be forced to operate from the confines of their own homes. Working with what they may have available, and leveraging the currently augmented population of Internet users, we have already noted increased propaganda efforts by extremists online. Beyond the uptick in the production and dissemination of propaganda materials and enhanced recruitment efforts, however, terrorists might also utilize their "downtime" to plan and coordinate future attacks. While there is no direct evidence of this occurring, it is plausible that committed radicals will eschew binge-watching the latest Netflix series in favor of conducting any operational preparations that they are able to. In today's data-saturated environment, this could include a wide array of electronic ISR (intelligence, surveillance and reconnaissance) activities, from evaluating potential targets using Google Earth, and combing message boards to identify gaps in a target's defenses to establishing Dark Web channels by which to procure illicit materials that can be used in weapons. Such activities carry some risk of detection or infiltration by authorities, but at the very least terrorists could utilize the time to improve their technical and other skills, for example, by taking online chemistry or electronics courses to assist with bomb-

making. Although the number of past attempts of terrorists attempting to launch high-impact cyberattacks has been limited, the pandemic may also allow operational cadre to enhance their cyberattack abilities or even to attempt attacks against targets of opportunity. Cybercrime has escalated in general during the pandemic[50], with a significant increase in attempted ransomware attacks against critical response infrastructure like hospitals and other medical services.[51] Rather than hold vital systems hostage for money, enterprising terrorists could seek to disable or otherwise disrupt these systems and thus exacerbate the health impact of the pandemic.

6. Establishing Bioterrorism as a Viable Tactic

Much has been written about terrorist calculations for engaging in bioterrorism[52], with the general consensus among experts being that only a relatively small subset of terrorists is willing and able to do so.[53] Within the terrorist calculus, however, at least part of the motivation to pursue biological agents as weapons is based on the consequences that such weapons are likely to have. These, in turn, are influenced to a large degree by the vulnerability of the target society to infectious diseases in general.[54] The inability of even highly developed countries to stop the spread of the virus and the often incoherent and delayed responses of authorities at all levels have exposed the myriad weaknesses present in global public health systems. Such outcomes will not go unnoticed by terrorist groups, who will remember these impacts when seeking new means to achieve their goals. It must be remembered that a key strategy of terrorism is to inflict psychological damage on populations as a means of coercion, usually through physical harm or the threat thereof. The societal disruption, economic damage, and deaths caused by COVID-19 are a perfect script for the theatre of terrorism.

It is thus logical that for many terrorists, wherever their prior calculations for bioterrorism had ended up, the vulnerabilities highlighted by the COVID-19 pandemic have shifted these towards the more attractive end of the scale.[55] For those terrorists who were near but not quite at the tipping point where they would actively pursue bioterrorism, the pandemic might push them across the Rubicon. At the same time, the indiscriminate nature of COVID-19, and the fact that it is affecting everyone irrespective of religion, ethnicity or citizenship, might give other terrorists that only target specific populations pause, at least when it comes to utilizing contagious pathogens. The potential increase in the likelihood of bioterrorism might therefore be restricted to the more generally misanthropic terrorists or those espousing more transcendental ideologies.

7. Weaponizing COVID-19

While the majority of past cases of terrorists and other violent non-state actors attempting to use biological agents to cause harm have involved noncontagious agents, like *Bacillus anthracis* and various biological toxins, there have been roughly a dozen cases involving contagious pathogens according to the Profiles of Incidents involving CBRN and Non-state Actors (POICN) Database.[56] Among the more prominent of these figure plots by R.I.S.E., a small group who planned to use *Salmonella typhi* in 1972 as part of a plot to destroy the world and repopulate it[57], as well as the Japanese doomsday cult Aum Shinrikyo, which attempted to collect Ebola virus samples in Zaire during its "African Salvation Tour" in 1992.[58] In 1995, white supremacist Larry Wayne Harris ordered vials of *Yersinia pestis*, the causative agent of bubonic and pneumonic plague,[59] and in 2014 a laptop of a Tunisian linked to ISIS indicated an interest in weaponizing the same agent.[60] Recent studies have suggested that intentionally disseminating dangerous pathogens by using one person to infect others is certainly possible for perpetrators who are less concerned with their own safety.[61] It is therefore not out of the question—particularly since it is so infectious and samples are readily accessible—that terrorists might be drawn to considering using the SARS-CoV-2 virus as a weapon.

There are three possible scenarios in this regard. First, there are low-level threats of actual spreading of the virus with little to no premeditation, usually as part of an emotional outburst or idiosyncratic behavior. There have been multiple cases in the United States, as well as reports from the United Kingdom, Italy, Japan, Belgium, Australia, Kazakhstan, and elsewhere of individuals claiming to have coronavirus intentionally and coughing

or spitting on other people, licking products in stores, and similar behavior. [62] While not rising to the level of behavior that academics generally attach to the term terrorism, at least in the United States some of these have been prosecuted as cases of terrorism. [63]

The second scenario involves using the virus as part of a planned attack on specific ideological targets. In this regard, the virus itself provides a relatively quick and easy way for terrorists to engage in "bioterrorism," since they can merely become infected and then purposely spread the virus. There have indeed been calls amongst white nationalists and jihadists to do just this. Far-right groups using *Telegram* in the United States have encouraged those of their followers who contract COVID-19 to spread the disease to law enforcement, non-Whites and Jews, e.g., by spreading saliva on door handles at FBI offices[64] or synagogues.[65] At the most repugnant end of this spectrum are calls to use COVID-19 against the Jews in what a sick joke of far-right activists termed "Holocough".[66] There have also been indicators among jihadists of similar tactics, such as ISIS-linked networks in Indonesia reportedly calling on "infected followers to spread the coronavirus to law enforcement officials" [67] and the arrest in Tunisia on April 16, 2020 of an alleged Islamist for plotting to spread COVID-19 among security forces.[68]

The third scenario consists of perpetrators intentionally spreading the coronavirus in an indiscriminate manner in order to prolong or reignite the pandemic on a large scale. At the moment, with the virus established in almost every country worldwide, carrying through on such threats is unlikely to make an overwhelming difference on the ground, although it could exacerbate infection rates in areas with low current exposure or sideline some first responders. The main benefit for a terrorist group attempting such an act would thus be largely rhetorical for now, and even this would be in some doubt as in many cases it would be difficult to verify that the terrorists claiming the attack had actually carried it out as opposed to a natural social spreading of the disease. It is important to note, however, that if current efforts to control the pandemic are successful and within a few months the first wave subsides, the majority of the population will still be susceptible to the virus and it will be relatively easy for extremists or other malcontents to initiate a second wave. Therefore, the actions of terrorists in this regard become far more salient after the first wave of COVID-19 passes. Thankfully, the window for launching such an attack is relatively small, as once a reliable vaccine is developed, this avenue of bioterrorism is no longer viable.

8. Conventional Attacks during the Pandemic

Aside from areas of high instability, where the pandemic might provide attack opportunities because it draws away security forces, many terrorists in more developed parts of the world will likely conclude that pandemic times are not the best time to launch a major attack. In addition to the operational friction noted above, there are strategic disincentives when the attention of the world is fixed firmly on the disease: it will be that much more difficult to achieve a large publicity footprint.[69] After all, no politically motivated terrorist group worth its salt wants to be relegated to the ninth or tenth headline in a news feed. At the same time, most traditional targets of high civilian concentration, such as airports, subways and entertainment venues, are more or less deserted, making it more advantageous for those terrorists seeking mass casualties to wait until the shutdowns and restrictions have been lifted. Even then, it might be some time before the number of people frequenting many soft targets like transportation hubs will recover to pre-pandemic levels.

There is one glaring exception, however, when it comes to medical facilities. These and related places where victims of the coronavirus are being treated can provide both a concentration of casualties and high levels of publicity were they to be attacked. This was ostensibly the case with Timothy Wilson, a white nationalist and anti-government extremist who was killed in Missouri on March 24, 2020 after apparently planning to attack a local hospital.[70] He had reportedly already been plotting an attack, but changed his target and his timing following the outbreak of COVID-19, because the medical center apparently "offered more casualties".[71] Therefore, wherever the pandemic continues to result in large numbers of victims being treated in health care facilities, particular attention should be paid to these venues.

While these arguments might hold for mass-casualty operations, they are less applicable to smaller-scale terrorist attacks, often carried out by so-called "lone wolves". Jihadists have called upon their followers to exploit the disruptions caused by the pandemic to launch attacks in the West.[72] Isolated examples of such small-scale attacks have occurred, including, for example, the stabbing of several people on April 4, 2020 and the injuring of three police officers by deliberate vehicle ramming on April 27, 2020 both in France and both perpetrated by alleged jihadists.[73]

9. Less-Secure Facilities

COVID-19 will likely have an adverse effect on the security of many facilities. While those guarding high-value targets in the West (such as government buildings) are usually designated as essential personnel and remain on post during the pandemic, in other cases facilities might be left less secure than during normal undertakings. This could be the result of limited operations, personnel being quarantined or falling ill, a psychologically distracted workforce, or even, simply, reduced foot traffic by passersby. In addition to its implications for crime and other malfeasance, this situation might have at least three consequences for terrorism.

First, with respect to carrying out attacks, although many areas operating with minimal personnel or visitors might make less attractive targets for terrorists seeking a high body count, for those terrorists who specifically seek fewer or no casualties (such as most animal rights extremists) or who have a penchant for symbolic targets like national monuments or sacred spaces, the lower levels of security and general disruption might provide them with increased opportunities to carry out a successful attack.

Second, enterprising terrorists might see lower facility security as an opportunity to acquire materials from locations where they might otherwise not take the risk. Facilities of concern for theft during the pandemic include weapons storage areas, chemical plants, and facilities that store nuclear, radiological or other hazardous materials. At the same time, even legitimate purchases might become less risky for terrorists. For example, a store clerk that ordinarily would notice and report an individual attempting to purchase large quantities of peroxide, might miss such an attempt when they are anxious about their own exposure, and where every customer is purchasing larger quantities of everyday items. Terrorists might realize this and make more attempts now than at other times to purchase or steal raw materials that could be used to produce IEDs or other weapons.

Third, is the security of prisons and other detention areas. In its *al-Naba* newsletter on March 19, 2020, ISIS encouraged its followers "to exploit the COVID-19 pandemic to free 'Muslim prisoners," including its members in Syrian prisons and detention camps.[74] It might not be much of a coincidence, then, that at Gwheran Prison in northeastern Syria, there was a massive riot on March 30, 2020 during which several ISIS fighters escaped.[75]

10. CT Distractions

Counterterrorism personnel are not immune to the physical or psychological effects and the social disruption caused by the pandemic. At all levels, from intelligence analysts to law enforcement, counterterrorism personnel have the potential, like any individual, to fall ill from the virus or experience its attendant psychological anxieties and frustrations. At the very least, the ongoing situation will reduce capabilities and introduce friction into the counterterrorism process (e.g., with analysts teleworking or suffering personal stresses), thus making it more likely that a crucial warning indicator or piece of intelligence could fall through the cracks.

Potentially even more detrimental at a systemic level is that dealing with COVID-19 might draw resources away from counterterrorism operations both at home and abroad, as personnel, money and other resources are diverted to help combat the virus. We are already seeing potential ramifications of counterterrorism distractions on an international scale, as large terrorist networks seek to exploit the gaps that COVID-19 has opened on security. In the Horn of Africa, U.S. forces had declared a public health emergency in late April,

steering international cooperation meetings originally intended for counterterrorism focus to combat al-Shabaab into an effort against the presumably coming disease.[76] Also adjusting to the newest threat on the horizon, INTERPOL has recently shifted its terrorism monitoring operations to a remote effort while some French troops have been pulled back from West Africa, leaving the Sahel region more susceptible to attacks and radicalization campaigns from regional affiliates of ISIS, al-Qaeda, and especially Boko Haram.[77] Iraq has also suffered by the withdrawal of troops from several European countries as security attention and efforts are redirected to combat the spreading of disease.[78]

Capitalizing on this distraction, multiple terrorist groups, and in particular ISIS, have explicitly called upon their followers to carry out attacks on vulnerable opponents who have increasingly focused attention on COVID-19. An expansion in ISIS-affiliated attacks across several continents was recorded following the publication of the Islamic State's March 19, 2020 edition of *al-Naba*, in which the group encouraged taking advantage of the disruption caused by the coronavirus.[79] The month of April alone saw 110 incidents across Iraq, the highest recorded figure of incidents since December 2019, as ISIS and other groups sought to target vulnerable security forces.[80] Of note within this context is the report of a specific upsurge in attacks in Iraq following the implementation of a long-term curfew.[81]

With the ongoing spread of the virus across the globe and the potential for a second and even third wave, national and international coordination on counterterrorism might only be weakened over time. The extent to which these immediate strains on counterterrorism activities will persist or intensify will depend on the duration and extent of the progress of the disease. What is perhaps more problematic is that the long-term economic damage brought about by the pandemic might curtail available resources to devote to counterterrorism for several years. Governments that have seen their coffers emptied and their gross national product dwindle will face difficult choices with respect to where they spend their diminished revenues and—notwithstanding a genuine commitment to counterterrorism—might be forced into feeding their population and reinvigorating their economies at the expense of defense spending, including funding for counterterrorism. Moreover, recovery from the pandemic might suck all the proverbial air out of government policy for some time, leaving an attention deficit that hampers interagency and international collaboration on counterterrorism.

Conclusions

A useful way to assess the various impacts and potential effects of the COVID-19 pandemic on the terrorism landscape is to parse them out temporally. In other words, to distinguish between those impacts that are likely to be felt only in the short term during the current initial outbreak (likely not more than two to three months from the time of writing), those likely to operate in the medium term (between the conclusion of the first wave and the achievement of widespread immunity to the virus, likely at the earliest by spring 2021), and those that are likely to manifest or persist into the longer term (up to several years from the time COVID-19 is conquered).

With respect to those effects that will largely be limited to the short term, these include all of the factors that are directly related to the lockdowns and other restrictions put in place to reduce the contagion. First, the diminution in terrorist capability and desire to launch large-scale attacks on many densely populated soft targets will only persist while these targets are sparsely populated—as soon as the restrictions are lifted and normal activities resume, both the friction and the disincentives will evaporate. On the positive side, from the point of view of the counterterrorists, the added attractiveness of medical facilities as targets and the opportunities to exploit lower security at certain facilities will also diminish. Some of the stresses underlying an increased susceptibility to radicalization and the more trenchant opposition to government measures will also decrease, as will several of the more direct distraction of security forces and diversion of counterterrorism resources. It should be noted, however, that should there be a resurgence in the pandemic, with additional waves with high numbers of infections, then all of these short-term effects will recur—and in terms of the psychological and anti-government effects, these might even intensify.

As discussed above, the greatest danger from terrorists utilizing COVID-19 itself as a weapon will arise in the

medium term, after the first wave is over. Several of the other factors are likely to continue to have an impact in the medium term, although perhaps not as acutely as before. In particular, the economic fallout of the pandemic might only begin to become clear once the initial crisis period has passed and will continue to cause psychological stress and potentially anger against the government even when people can leave their homes and return to more quotidian pursuits. Thus, some heightened susceptibility to radicalization and anti-government attitudes will carry over into the medium term. For similar economic reasons, counterterrorism forces the world over might also face shortfalls in resources during this period. Moreover, any apocalyptic-millenarian groups that have been stirred by the pandemic might begin to activate their doomsday scripts during this period.

It is during the longer term, however, that the pandemic is likely to have its greatest impact on the threat of terrorism, for this is when many of the second-order effects of COVID-19 will begin to unfold. It is during the years following the end of the pandemic, during what many project will be a lengthy economic stagnation and recovery period, that the gains made through current terrorist efforts to radicalize, recruit and engage in pro-social activities are likely to bear fruit. Large numbers of disillusioned and unemployed people, especially youth, are often a boon for terrorist groups and the operational consequences of increased recruitment and radicalization are likely to be felt then. It is also during this period that any terrorist group which has discovered increased utility in the notion of biological agents as weapons is likely to put its newfound interest to the test. Lastly, there is the danger that counterterrorism might fall lower on the agenda of many governments just as these COVID-19-induced threats are manifesting.

Therefore, just as was the case with the 1918–1919 influenza pandemic, it is the structural changes resulting from the pandemic that are likely to have the most significant effects on the future of terrorism.

While much of this discussion has been speculative, it should at the very least serve to place some of the potential effects of COVID-19 on the radar and in a broader context. It is crucial that despite a possible decrease in resources or attention, counterterrorism agencies the world over keep a sharp lookout for indicators that any of these systemic risks are emerging.

About the Authors:

Gary A. Ackerman is Associate Professor of Emergency Preparedness, Homeland Security and Cybersecurity at the University at Albany (SUNY), where his research focuses on understanding how terrorists and other adversaries make tactical, operational, and strategic decisions, particularly with regard to innovating their use of weapons and tactics. Much of his work in this area is centered on the motivations and capabilities of non-state actors to acquire and use chemical, biological, radiological or nuclear weapons. In addition to his faculty position, he is Associate Dean for Research and Laboratory Development, and the founding director of the Center for Advanced Red Teaming (CART).

Hayley Peterson is currently a graduate student at the University at Albany (SUNY), where she is obtaining a Master of Business Administration (MBA). She serves as a Research Assistant for the Center for Advanced Red Teaming and recently graduated with a Bachelor of Arts in Emergency Preparedness, Homeland Security, and Cybersecurity. Her research interests include red teaming, national security, military and defense policy, and weapons of mass destruction.

Notes

- [1] Gage, Beverly, *The Day Wall Street Exploded: A Story of America in its First Age of Terror*, New York: Oxford University Press (2009).
- [2] Avrich, Paul, Sacco and Vanzetti: The Anarchist Background, Princeton: Princeton University Press (1991); Senta, Antonio and Sean Sayers, Luigi Galleani The Most Dangerous Anarchist in America, Chico, CA: AK Press (2019).
- [3] Past examples of such groups are the Rajneeshees, the Covenant, Sword, and the Arm of the Lord, and certain remote factions of the Liberation Tigers of Tamil Eelam or Sendero Luminoso. Current examples might include some factions of AQIM and Boko Haram.
- [4] Nicholson, Dylan, 'COVID-19 an opportunity for terrorists or a threat to their existence', *Defence Connect*, April 29, 2020; URL: https://www.defenceconnect.com.au/key-enablers/5995-global-terror-and-covid-19.
- [5] Davey, Graham, 'Disgust: the disease-avoidance emotion and its dysfunctions', *Philosophical Transactions of the Royal Society B: Biological Sciences* 366, 1583 (2011): pp. 3453-3465; Tybur, Joshua, Debra Lieberman, Robert Kurzban, and Peter DeScioli, 'Disgust: Evolved function and structure', *Psychological Review* 120, 1 (2013): pp. 65-84; Woody, Sheila and Bethany Teachman, 'Intersection of disgust and fear: Normative and pathological views', *Clinical Psychology: Science and Practice* 7, 3 (2000): pp. 291–311; Brady, Robert and Jeffrey Lohr, 'A behavioral test of contamination fear in excessive health anxiety', *Journal of Behavior Therapy and Experimental Psychiatry* 45, 1 (2014): pp. 122-127.
- [6] Although the facts are not entirely clear, a potential real-world example of this can be seen in the arrest of Muhammad Masood, a Pakistani doctor, on March 19, 2020 for attempting to provide material support to ISIS. He had originally intended to travel to Syria via Amman, Jordan, but after Jordan closed its borders due to COVID-19, he was forced to find an alternate travel route, which apparently allowed law enforcement to set a trap for him by dangling the prospect of passage on a cargo ship from Los Angeles to Syria. See Department of Justice, 'Pakistani Doctor Charged with Attempting to Provide Material Support to ISIS', (PRN 20-330) March 19, 2020; URL: https://www.justice.gov/opa/pr/pakistani-doctor-charged-attempting-provide-material-support-isis.
- [7] There have been some instances of attacks by radical individuals under lockdown conditions, such as the stabbing by a suspected jihadist of seven people in Romans-sur-Isère, France on April 4, 2020. See Marone, Francesco, 'Terrorism and Counterterrorism in a Time of Pandemic', *Italian Institute for International Political Studies*, May 15, 2020; URL: https://www.ispionline.it/en/pubblicazione/terrorism-and-counterterrorism-time-pandemic-26165.
- [8] Especially where such controls are weak, terrorists might still enjoy at least moderate freedom of action (as discussed later in the text).
- [9] Bellinger, Nisha and Kyle Kattelman, 'How the coronavirus increases terrorism threats in the developing world', *The Conversation*, May 26, 2020; URL: https://theconversation.com/how-the-coronavirus-increases-terrorism-threats-in-the-developing-world-137466.
- [10] *Asia-Pacific Foundation*, 'APF Analysis: Protecting Counter-Terrorism Funding in the Coronavirus (COVID-19) Era', May 13, 2020; Clarke, Colin, 'Yesterday's Terrorists Are Today's Public Health Providers', *Foreign Policy*, April 8, 2020; URL: https://foreign-policy.com/2020/04/08/terrorists-nonstate-ungoverned-health-providers-coronavirus-pandemic/.
- [11] Perry, Tom and Laila Bassam, 'Hezbollah deploys medics, hospitals against coronavirus in Lebanon,' *Reuters*, March 25, 2020; URL: https://www.reuters.com/article/us-health-coronavirus-hezbollah/hezbollah-deploys-medics-hospitals-against-coronavirus-in-lebanon-idUSKBN21C3R7; Hanna, Andrew, 'What Islamists Are Doing and Saying on COVID-19 Crisis', *Wilson Center*, May 14, 2020; URL: https://www.wilsoncenter.org/article/what-islamists-are-doing-and-saying-covid-19-crisis; Clarke, Colin, op. cit.
- [12] Asia-Pacific Foundation, 'APF Analysis: The Coronavirus (COVID-19) Impact on the ISIS Detention Camps in Syria,' April 27, 2020.
- [13] Loadenthal, Michael, 'The 2020 Pandemic and Its Effect on Anarchist Activity', *ISPI*, May 15, 2020; URL: https://www.ispion-line.it/it/pubblicazione/2020-pandemic-and-its-effect-anarchist-activity-26157.
- [14] Kecmanovic, Jelena, 'Pandemic anxiety is making us sleepless, forgetful and angry. Here are tips for coping'. *The Washington Post*, April 3, 2020; URL: https://www.washingtonpost.com/lifestyle/wellness/anxiety-coronavirus-sleep-memory-anger-fo-cus/2020/04/03/61dab1b0-75b9-11ea-85cb-8670579b863d_story.html.
- [15] Taub, Amanda, 'A New COVID-19 Crisis: Domestic Abuse Rises Worldwide', *The New York Times*, April 6, 2020; URL: https://www.nytimes.com/2020/04/06/world/coronavirus-domestic-violence.html; Bettinger-Lopez, Caroline and Alexandra Bro, 'A Double Pandemic: Domestic Violence in the Age of COVID-19', *Council on Foreign Relations*, May 13, 2020; URL: https://www.cfr.org/in-brief/double-pandemic-domestic-violence-age-covid-19; Panchal, Nirmita, Rabah Kamal, Kendal Orgera, Cynthia Cox, Rachel Garfield, Liz Hamel, Cailey Muñana and Priya Chidamabaram, 'The Implications of COVID-19 for Mental Health and Substance

Use', *KFF*, April 21, 2020; URL: https://www.kff.org/coronavirus-covid-19/issue-brief/the-implications-of-covid-19-for-mental-health-and-substance-use/.

- [16] There is substantial literature on how the need for cognitive closure and uncertainty interact to lead to greater discrimination against, and distrust of, outgroups. See, for example, Brizi, Ambra, Lucia Mannetti and Arie Kruglanski, 'The Closing of Open Minds: Need for Closure Moderates the Impact of Uncertainty Salience on Outgroup Discrimination', *British Journal of Social Psychology* 55, 2 (2015); Orehek, Edward, Shira Fishman, Mark Dechesne, Bertjan Doosje, Arie Kruglanski, Angela Cole, Billie Saddler and Tarra Jackson, 'Need for Closure and the Social Response to Terrorism', *Basic and Applied Social Psychology* 32, 4 (2010): pp. 279-290.
- [17] McCauley, Clark and Sophia Moskalenko, 'Mechanisms of Political Radicalization: Pathways Toward Terrorism', *Terrorism and Political Violence* 20, 3 (2008): p. 419; Kruglanski, Arie, Michele Gelfand and Rohan Gunaratna, 'Terrorism as means to an end: How political violence bestows significance', (In P. R. Shaver & M. Mikulincer (Eds.), *Meaning, mortality, and choice: The social psychology of existential concerns*) American Psychological Association (2012): pp. 203-212; Kruglanski, Arie, Xiaoyan Chen, Mark Dechesne, Shira Fishman and Edward Orehek, 'Fully Committed: Suicide Bombers' Motivation and the Quest for Personal Significance', *Political Psychology* 30, 3 (2009): pp. 331-357; Borum, Randy, *Psychology of Terrorism*, Tampa: University of South Florida (2004); Wiktorowicz, Quintan, *Islamic Activism: A Social Movement Theory Approach*, Bloomington: Indiana University Press (2004).
- [18] Berkowitz, Leonard, 'Frustration-aggression hypothesis: an examination and reformulation', *Psychological Bulletin* 106, 1 (1989): pp. 59-73; Ciampi, David, 'Developmental and motivational factors of transnational terrorists', *Forensic Examiner* 14, 3 (2005): pp. 29-34.
- [19] Pyszczynski, Tom, Abdolhossein Abdollahi, Sheldon Solomon, Jeff Greenberg, Florette Cohen and David Weise, 'Mortality salience, martyrdom, and military might: the great Satan versus the axis of evil', *Personality and Social Psychology Bulletin* 32, 4 (2006): pp. 525-537.
- [20] Basit, Abdul, 'The COVID-19 Pandemic: An Opportunity for Terrorist Groups?' Counter Terrorist Trends and Analyses 12, 3 (2020): pp. 7-12.
- [21] Pauwels, Annelies, 'How Europe's terrorists take advantage of the pandemic', *EUObserver*, April 29, 2020; URL: https://euobserver.com/opinion/148173.
- [22] Bellinger, Nisha and Kyle Kattelman, op. cit.
- [23] MEMRI, 'The way forward—A word of advice on the coronavirus pandemic', (In Al-Qaeda Central: COVID-19 Is Divine Punishment For Sins Of Mankind; Muslims Must Repent, West Must Embrace Islam), March 31, 2020; URL: https://www.memri.org/reports/al-qaeda-central-covid-19-divine-punishment-sins-mankind-muslims-must-repent-west-must; European Institute for Counter Terrorism and Conflict Prevention, 'COVID-19: Is Bioterrorism on the Rise Now?'; URL: https://www.eictp.eu/en/covid-19-is-bioterrorism-on-the-rise-now/; Marone, Francesco, op. cit.; Stoian Karadeli, Andreea, 'COVID-19 and Terrorist Groups', International Security and Defence Journal, June 2020; URL: https://www.eictp.eu/en/covid-19-is-bioterrorism-on-the-rise-now/; Marone, Francesco, op. cit.; Stoian Karadeli, Andreea, 'COVID-19 and Terrorist Groups', International Security and Defence Journal, June 2020; URL: https://www.eictp.eu/en/covid-19-is-bioterrorism-on-the-rise-now/; Marone, Francesco, op. cit.; Stoian Karadeli, Andreea, 'COVID-19 and Terrorist Groups', International Security and Defence Journal, June 2020; URL: https://www.eictp.eu/en/covid-19-is-bioterrorism-on-the-rise-now/; Marone, Francesco, op. cit.; Stoian Karadeli, Andreea, 'COVID-19 and Terrorist Groups', International Security and Defence Journal, June 2020; URL: https://www.eictp.eu/en/covid-19-is-bioterrorism-on-the-rise-now/; Stoian Karadeli, Andreea, 'COVID-19 and Terrorist Groups', International Security and Defence Journal, June 2020; URL: <a href="https://
- [24] Hincks, Joseph, 'With the World Busy Fighting COVID-19, Could ISIS Mount a Resurgence?' *Time*, April 29, 2020; URL: https://time.com/5828630/isis-coronavirus/.
- [25] Coleman, Julie, 'The Impact of Coronavirus on Terrorism in the Sahel', *International Centre for Counter-Terrorism*, April 16, 2020; URL: https://icct.nl/publication/the-impact-of-coronavirus-on-terrorism-in-the-sahel/.
- [26] Community Security Trust, Coronavirus and the Plague of Antisemitism, London (2020).
- [27] Kraut, Alan, 'Immigration, Ethnicity, and the Pandemic', Public Health Reports (2010).
- [28] *ADL*, 'White Supremacists Respond to Coronavirus With Violent Plots and Online Hate', March 26, 2020; URL: https://lasve-gas.adl.org/white-supremacists-respond-to-coronavirus-with-violent-plots-and-online-hate/.
- [29] Mello Jr., John, 'Far-Right Spreads COVID-19 Disinformation Epidemic Online', *TechNewsWorld*, May 5, 2020; URL: https://www.technewsworld.com/story/86648.html.
- [30] Perrigo, Billy, 'White Supremacist Groups Are Recruiting With Help From Coronavirus—and a Popular Messaging App', *Time*, April 8, 2020; URL: https://time.com/5817665/coronavirus-conspiracy-theories-white-supremacist-groups/.
- [31] Silke, Andrew, 'COVID–19 and terrorism: assessing the short-and long-term impacts', May 5, 2020; URL: https://www.poolre.co.uk/wp-content/uploads/2020/05/COVID-19-and-Terrorsim-report-V1.pdf.
- [32] Hincks, Joseph, op. cit.

- [33] Lederer, Edith, 'UN chief: Extremists using COVID-19 to recruit online youths', *AP News*, April 27, 2020; URL: https://apnews.com/a6cf967c03f7ff00e170949a9eaeb11a.
- [34] Dearden, Lizzie, 'Coronavirus: Terror threat to hospitals as extremists call for attacks during lockdown', *Independent*, April 21, 2020; URL: https://www.independent.co.uk/news/uk/home-news/coronavirus-lockdown-hospitals-nhs-terror-threat-5g-conspiracy-theory-a9476066.html.
- [35] See Wallach, Philip and Justus Myers, *The federal government's coronavirus response Public health timeline*, Brookings, March 31, 2020; URL: https://www.brookings.edu/research/the-federal-governments-coronavirus-and-failures-time-line-and-themes/; Goodman, Ryan and Danielle Schulkin, 'Timeline of the Coronavirus Pandemic and U.S. Response', May 7, 2020; URL: https://www.justsecurity.org/69650/timeline-of-the-coronavirus-pandemic-and-u-s-response/; Abuza, Zachary, 'Explaining Successful (and Unsuccessful) COVID-19 Responses in Southeast Asia', *The Diplomat*, April 21, 2020; URL; https://thediplomat.com/2020/04/explaining-successful-and-unsuccessful-covid-19-responses-in-southeast-asia/; Scheffer, David, 'Is It a Crime to Mishandle A Public Health Response?' *Council on Foreign Relations*, April 22, 2020; URL: https://www.cfr.org/article/it-crime-mishan-dle-public-health-responses-.
- [36] Blickle, Kristian, *Pandemics Change Cities: Municipal Spending and Voter Extremism in Germany, 1918–1933*, Federal Reserve Bank of New York Staff Reports 921 (2020) [Prepublication Version]; URL: https://www.newyorkfed.org/medialibrary/media/research/staff reports/sr921.pdf.
- [37] This should not discount the role played by state actors in spreading disinformation about the virus, although this is not the focus of the present discussion. See Schaub, Heiko, 'The Role of State-Supported Disinformation in the Wake of COVID-19', *PRIO Blogs*, June 9, 2020; URL: https://blogs.prio.org/2020/06/the-role-of-state-supported-disinformation-in-the-wake-of-covid-19/, but the focus here is on non-state extremists.
- [38] Broderick, Ryan, 'QAnon Supporters And Anti-Vaxxers Are Spreading A Hoax That Bill Gates Created The Coronavirus', *BuzzFeed News*, January 23, 2020; URL: https://www.buzzfeednews.com/article/ryanhatesthis/qanon-supporters-and-anti-vaxxers-are-spreading-a-hoax-that;
- *ISD*, "COVID-19 Disinformation Briefing No. 1," March 27, 2020; URL: https://g8fip1kplyr33r3krz5b97d1-wpengine.netdna-ssl.com/wp-content/uploads/2020/03/Briefing-Covid-19.pdf.
- [39] Silke, Andrew, op. cit.
- [40] See, for example, the blog 'The Plague and The Fire', URL: https://plagueandfire.noblogs.org/en/
- [41] Department of Justice, 'Train Operator at Port of Los Angeles Charged with Derailing Locomotive Near U.S. Navy's Hospital Ship Mercy', (PRN 20-064) April 1, 2020; URL: https://www.justice.gov/usao-cdca/pr/train-operator-port-los-angeles-charged-de-railing-locomotive-near-us-navy-s-hospital; Neiwert, David, 'Coronavirus conspiracy theorists are too nuts even for a zombie-apocalypse movie scenario,' Daily Kos, April 3, 2020; URL: https://www.dailykos.com/stories/2020/4/3/1933811/-Coronavirus-conspiracy-theorists-are-too-nuts-even-for-a-zombie-apocalypse-movie-scenario; Silke, Andrew, op. cit.
- [42] Lawrence Kane, Peter, 'The Anti-Mask League: lockdown protests draw parallels to 1918 pandemic,' *The Guardian*, April 29, 2020; URL: https://www.theguardian.com/world/2020/apr/29/coronavirus-pandemic-1918-protests-california; Clark, Dartunorro, 'A breaking point': Anti-lockdown efforts during Spanish flu offer a cautionary tale for coronavirus' *NBC News*, May 11, 2020; URL: https://www.nbcnews.com/politics/politics-news/breaking-point-anti-lockdown-efforts-during-spanish-flu-offer-caution-ary-n1202111.
- [43] Bertrand, Natasha, 'DHS warns of increase in violent extremism amid coronavirus lockdowns', *POLITICO*, April 23, 2020; URL: https://www.politico.com/news/2020/04/23/dhs-increase-in-coronavirus-inspired-violence-205221.
- [44] Dickson, Caitlin, 'A pandemic of conspiracy theories spreads across the internet and around the world', *Yahoo News*, May 21, 2020; URL: https://www.yahoo.com/news/a-pandemic-of-conspiracy-theories-spreads-across-the-internet-and-around-the-world-195903321.html.
- [45] Loadenthal, Michael, op. cit.
- [46] For more on the dangers of apocalyptic-millenarian terrorists, see Lifton, Robert, *Destroying the World to Save It: Aum Shinrikyo, Apocalyptic Violence, and the New Global Terrorism*, New York: Metropolitan Books (2000); Stern, Jessica, *The Ultimate Terrorists*, Cambridge, MA: Harvard University Press (1999).
- [47] In the early 1990s, despite Aum Shinrikyo's international activities involving efforts to develop CBRN weapons, its unprecedented resources and its virulent anti-Americanism, the cult was "not on anybody's radar screen". See Senate Government Affairs Permanent Subcommittee on Investigations (Minority Staff), 'Hearings on Global Proliferation of Weapons of Mass Destruction: A Case Study on the Aum Shinrikyo', October 31, 1995: p. 91.

- [48] 'Contributions are urgently solicited for scientific research on a species-specific virus that will eliminate Homo shiticus from the planet'. Gula, "Eco-Kamikazes Wanted," *Earth First! Journal*, Sept. 22, 1989: p. 21.
- [49] Abdul Basit maintains that the COVID-19 pandemic "feeds into the apocalyptic, end-of-time narratives of ISIS" (Basit, Abdul, op. cit., p. 8.). As an example of associated fantastical thinking, Abubakar Shekau, one of the leaders of Boko Haram, has declared that true believers are protected from the virus and, consequently, he has denounced efforts to combat the virus. See Campbell, John, 'Boko Haram's Shekau Labels Anti-COVID-19 Measures an Attack on Islam in Nigeria', *Council on Foreign Relations*, April 17, 2020; URL: https://www.cfr.org/blog/boko-harams-shekau-labels-anti-covid-19-measures-attack-islam-nigeria.
- [50] Cimpanu, Catalin, 'FBI says cybercrime reports quadrupled during COVID-19 pandemic', *ZDNet*, April 18, 2020; URL: https://www.zdnet.com/article/fbi-says-cybercrime-reports-quadrupled-during-covid-19-pandemic/.
- [51] *INTERPOL*, 'Cybercriminals targeting critical healthcare institutions with ransomware', April 4, 2020; URL: https://www.inter-pol.int/en/News-and-Events/News/2020/Cybercriminals-targeting-critical-healthcare-institutions-with-ransomware.
- [52] Ackerman, Gary and Kevin Moran, 'Bioterrorism and Threat Assessment', Paper #22 commissioned by the *Weapons of Mass Destruction Commission* (The "Blix" Commission), Stockholm (2005): pp. 1-18; URL: http://docshare01.docshare.tips/files/2791/27919768.pdf; Loeb, Cheryl, 'Jihadists and Biological and Toxin Weapons', (In Gary Ackerman and Jeremy Tamsett (Eds.), Jihadists and Weapons of Mass Destruction), Boca Raton, Florida: CRC Press (2009): p. 59.
- [53] Hoffmann, Bruce, 'Terrorism and WMD: Some Preliminary Hypotheses', *The Nonproliferation Review* 4, 3 (1997); Stern, Jessica, op. cit.; Sprinzak, Ehud, 'On Not Overstating the Problem', (In Hype or Reality?: *The "New Terrorism" and Mass Casualty Attacks*, ed. by Brad Roberts), Alexandria, VA: Chemical and Biological Arms Control Institute (2000); Tucker, Jonathan and Amy Sands, 'An Unlikely Threat', *Bulletin of the Atomic Scientists* 55, 4 (1999).
- [54] Ackerman, Gary and Kevin Moran, op. cit., pp. 5-7.
- [55] Silke, Andrew, op. cit.
- [56] Binder, Markus and Gary Ackerman, 'Pick Your POICN: Introducing the Profiles of Incidents involving CBRN and Non-state Actors (POICN) Database', *Studies in Conflict and Terrorism* pp. 1-25 (2019).
- [57] Carus, W. Seth, 'R.I.S.E. (1972)', (In Jonathan Tucker, Toxic Terror: Assessing Terrorist Use of Chemical and Biological Weapons), *Cambridge, Massachusetts: MIT Press* (2000).
- [58] Kaplan, David, 'Aum Shinrikyo (1995)', (In Jonathan Tucker, Toxic Terror: Assessing Terrorist Use of Chemical and Biological Weapons), *Cambridge, Massachusetts: MIT Press* (2000).
- [59] Stern, Jessica, 'Larry Wayne Harris (1998)', (In Jonathan Tucker, Toxic Terror: Assessing Terrorist Use of Chemical and Biological Weapons), Cambridge, Massachusetts: MIT Press (2000).
- [60] Doornbos, Harald and Jenan Moussa, 'Found: The Islamic State's Terror Laptop of Doom', *Foreign Policy*, August 28, 2014; URL: https://foreignpolicy.com/2014/08/28/found-the-islamic-states-terror-laptop-of-doom/.
- [61] Pilch, Richard, 'How to keep the new coronavirus from being used as a terrorist weapon', *Bulletin of the Atomic Scientists*, March 27, 2020; URL: https://thebulletin.org/2020/03/how-to-keep-the-new-coronavirus-from-being-used-as-a-terrorist-weap-on/#.
- [62] For examples, see Andrew, Scottie and Anna Sturla, 'A grocery store threw out \$35,000 in food that a woman intentionally coughed on, sparking coronavirus fears, police said, CNN, March 26, 2020; URL: https://www.cnn.com/2020/03/26/us/womancoughed-on-produce-trnd/index.html; Rice, Rachel, 'Man charged after police say he licked items at Warrenton Walmart to mock virus fears', St. Louis Today, March 11, 2020; URL: https://www.stltoday.com/lifestyles/health-med-fit/coronavirus/man-chargedafter-police-say-he-licked-items-at-warrenton/article 2e9d0fc7-b21a-5ebc-a8e9-cc181f3f3934.html; Johncox, Cassidy, 'Mt. Morris man charged after attempting to infect others with COVID-19 at grocery store, police say', ClickOnDetroit, March 28, 2020; URL: https://www.clickondetroit.com/news/local/2020/03/28/mt-morris-man-charged-with-multiple-felonies-after-claiming-to-havecovid-19-attempting-to-infect-others-at-grocery-store/; WBTV, 'Police look for Texas woman who says she's spreading COVID-19', April 6, 2020; URL: https://www.wbtv.com/2020/04/06/police-look-texas-woman-who-says-shes-spreading-covid-/; Jorge, Kaylin, 'Tennessee man facing terrorism charge after yelling he had COVID-19, coughing on people, Fox 17, April 7, 2020; URL: https:// fox17.com/news/local/tennessee-man-facing-terrorism-charge-after-yelling-he-had-covid-19-coughing-on-people; Kaur, Harmeet, 'A woman was arrested after licking \$1,800 worth of grocery store items, police say', CNN, April 9, 2020; URL: https://www.cnn. com/2020/04/09/us/woman-licked-grocery-store-items-trnd/index.html; Kuriakose, Sabina, '2 men charged, accused of intentionally coughing to threaten spread of coronavirus', News 8, March 27, 2020; URL: https://www.wtnh.com/news/crime-news/2men-charged-accused-of-intentionally-coughing-to-threaten-spread-of-coronavirus/; BBC News, 'Coronavirus: Man spat in faces of police officers jailed, April 21, 2020; URL: https://www.bbc.com/news/uk-england-nottinghamshire-52368784; Курмашева, Асем, "Жителя Алматы арестовали за плевок на кнопки лифта в многоэтажке," апреля 12, 2020; URL: https://liter.kz/zhite-

lya-almaty-arestovali-za-plevok-na/; Васильев, Андрей, "В Австралии арестована женщина, которая покашляла на офицера полиции," марш 28, 2020; URL: https://rg.ru/2020/03/28/v-avstralii-arestovana-zhenshchina-kotoraia-pokashliala-na-ofi-cera-policii.html; Silke, Andrew, op. cit.

- [63] LawZ, 'DOJ Just Warned That Intentional Spread of COVID-19 Could Be Terrorism What It Means', March 26, 2020; URL: https://lawandcrime.com/covid-19-pandemic/doj-just-warned-that-intentional-spread-of-covid-19-could-be-terrorism-what-it-means/; Office of The Attorney General, 'Man Charged with Terroristic Threats for Allegedly Coughing on Food Store Employee and Telling Her He Has Coronavirus', March 24, 2020; URL: https://www.nj.gov/oag/newsreleases20/pr20200324b.html.
- [64] Sheth, Sonam, 'White supremacists discussed using COVID-19 as bioweapon, explosive internal document reveals', *Business Insider*, March 22, 2020; URL; https://www.businessinsider.com/coronavirus-white-supremacists-discussed-using-covid-19-as-bio-weapon-2020-3.
- [65] Ong, Kyler and Nur Aziemah Azman, 'Distinguishing Between the Extreme Far-right and IS's Calls to Exploit COVID-19', Counter Terrorist Trends and Analyses 12, 3 (2020): pp. 18-21.
- [66] Community Security Trust, op. cit., p. 9.
- [67] Ong, Kyler and Nur Aziemah Azman, op. cit., p. 20.
- [68] Marone, Francesco, op. cit.
- [69] Although we discussed this idea as early as April 16, 2020, it was subsequently echoed by Silke, Andrew, op. cit.
- [70] Kosnar, Michael and Phil Helsel, 'FBI says man killed in Missouri wanted to bomb hospital amid coronavirus epidemic', *NBC News*, March 25, 2020; URL: https://www.nbcnews.com/news/us-news/fbi-says-man-killed-missouri-wanted-bomb-hospital-amid-coronavirus-n1169166.
- [71] Stephenson, Mercedes and Stewart Bell, 'Violent extremists may exploit coronavirus pandemic, target hospitals, threat report warns', (citing the *U.S. National Counterterrorism Centre* April 1 Report), *Global News*, April 8, 2020; URL; https://globalnews.ca/news/6795248/extremists-may-exploit-coronavirus-pandemic-threat-report/.
- [72] Díaz, Itxu, 'Islamic Terrorists Confront Coronavirus', *National Review*, April 28, 2020; URL; https://www.nationalreview.com/2020/04/coronavirus-pandemic-islamic-terrorists-confront-virus/.
- [73] Marone, Francesco, op. cit.
- [74] *Asia-Pacific Foundation*, 'APF Analysis: The Coronavirus (COVID-19) Impact on the ISIS Detention Camps in Syria,' April 27, 2020; Esmaquel II, Paterno, 'Wrath of God' vs 'infidels': Terrorists exploiting COVID-19', *Rappler*, April 25, 2020; URL: https://www.rappler.com/world/global-affairs/258988-terrorist-groups-exploiting-covid-19.
- [75] Asia-Pacific Foundation, 'APF Analysis: The Coronavirus (COVID-19) Impact on the ISIS Detention Camps in Syria, April 27, 2020.
- [76] Asia-Pacific Foundation, 'APF Analysis: Protecting Counter-Terrorism Funding in the Coronavirus (COVID-19) Era', May 13, 2020.
- [77] Ibid.
- [78] Salem, Kareem, 'ISIS looks to prosper in a world distracted by the virus,' *The Interpreter*, April 24, 2020; URL; https://www.lowyinstitute.org/the-interpreter/isis-looks-prosper-world-distracted-virus.
- [79] Silke, Andrew, op. cit.
- [80] Clarke, Colin, 'Remember Us? Islamic State Stays Active During Coronavirus Pandemic', *Foreign Policy Research Institute*, May 8, 2020; URL: https://www.fpri.org/article/2020/05/remember-us-islamic-state-stays-active-during-coronavirus-pandemic/.
- [81] Lucente, Adam, 'Islamic State steps up attacks in Iraq during coronavirus lockdown', *Al-Monitor*, April 21, 2020; URL: https://www.al-monitor.com/pulse/originals/2020/04/is-attacks-iraq-coronavirus-lockdown.html.

ISSN 2334-3745 73 June 2020