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#### Ukraine war is optimistic, but maintaining outside support and low Russian morale’s key.

* Ukraine getting outside help from west
* Kyiv’s history in soviet union and ties to Russia lowers morale
* Low morale destroys new conscriptions which is key for Russia
* Gives example of Ukrainian propaganda dissolving Russian army

Knispel interviewing Goemans 22 [Sandra Knispel, (Hein Goemans, a professor of political science at the University of Rochester, is an expert on international conflicts—on how they begin and end.) 3-9-2022, "How to end the war in Ukraine," NewsCenter, https://www.rochester.edu/newscenter/how-to-end-the-ukraine-war-514522/]

Q&A with Hein Goemans One or both sides must change their demands as a precursor to ending the war. What’s likely to happen in the current scenario? Putin made a big mistake by committing himself to total victory in Ukraine. Goemans: It depends on the performance on the battlefield, and a country’s expectations of outside help. Russia should have become more pessimistic in the last few days because Ukraine has shown its ability to inflict far greater costs on Russia than the Kremlin had anticipated. One would expect Russia therefore to lower its demands but we’ve seen very little evidence of that so far—only the demand of denazification seems to have been dropped. Overall, Putin still maintains that everything is going according to plan. If this continues, Ukrainian sovereignty may be at stake, which is dangerous and perhaps even stupid of Putin, who seems to be committing himself to total victory. If he can’t get it, he’ll be responsible and that makes a coup against him more likely. How has the situation changed for Ukraine and its demands for ending the war? Ukraine right now is not likely to accept anything less than full independence as a nation. Goemans: Ukraine must have gotten a lot more optimistic in recent days. Not just because its army has been doing reasonably well but because of the demonstrated incompetence of the Russian army. Yes, the Russians are still much stronger and much bigger, but there are problems with morale in the Russian army, and you see the remarkable level of Ukrainian support from the West. Ukrainians are still fighting for independence of their homeland and may maintain their claims to Luhansk and Donetsk in the Donbas region in south-eastern Ukraine. I don’t know whether they’d willing to give up Crimea at this point. One avenue worth exploring in peace negotiations might be true plebiscites, overseen by international observers. Can Putin credibly commit not to go beyond the invasion of Ukraine? In his February 21 speech, he expressed his aim to reconstitute the Russian Empire. Goemans: No, he cannot. Nobody would believe him if he said he’d stop at Ukraine. People are pointing to the failed attempt to appease Hitler with the Munich Agreement in 1938. So that’s a non-starter, especially with Putin’s February 21st speech in which he said he wants to reconstitute greater Russia or the Russian Empire. Western nations can no longer say, ‘Oh, he doesn’t mean that. We can still do business there and we can have gas if we give him just a little bit, maybe two Ukrainian towns or so.’ He made that impossible. Yes, the analogy is overused, but it really is like Hitler in 1938. People heard the speech and the appeasement alarm bells went off. Global view of Russia and former Soviet satellite countries labeled. (University of Rochester illustration / Michael Osadciw) A deciding factor in this war is going to happen in the next couple of weeks. Can you explain the role of Russian conscripts in this context? The question is how many new conscripts will actually show up because it’ll determine the strength of the Russian army on the ground in Ukraine. Goemans: There are two things to keep in mind: First, the new Russian conscription class is going to be drafted in April. It’ll be very informative to see how many people do not show up. Secondly, are the Russians really going to bomb Kyiv, a so-called “hero city of the Soviet Union,” into rubble like they did with Chechnya’s capital Grosny? Are they willing to kill tens of thousands of people? Those two benchmarks will happen in the next few weeks. How precarious is the situation for Putin’s own survival? He may keep fighting, even if he knows he’s losing, because the alternative may mean signing his own death warrant. Goemans: Putin may count on the fact that Ukrainians will give in if Kyiv is bombed. But if they don’t, that should make him more pessimistic. One would think that he’d have to lower his demands, and that at that point, some kind of deal would be possible. But Putin must come home with some kind of victory because otherwise he’s literally dead. That means he may keep fighting, even if he knows he’s losing, because the alternative is signing his own death warrant. That’s what happened in the First World War. Germany kept fighting for years, even though the leadership knew that they were losing within the first weeks of the war. You’re not hyperbolic when you say Putin is signing his own death warrant with a defeat? History has plenty of examples here. Goemans: No, I’m not. In a regime like Russia—which is clearly not a democracy, but also not quite a dictatorship—if you win a war, you’re the great hero; if you lose a war, you have shown your incompetence and you’ll be removed, which I have explored in my own research. You’ll be held as what’s known as a “culpable leader”—culpable for the fact that the gains of the war do not outweigh the losses. Historically such leaders have been removed from office, and they either have gone into exile, or have been jailed or killed. A recent example is the former Yugoslav President Slobodan Milosevic. What’s frightening, and there are already signs of this, is that Putin is moving towards a dictatorship because only full repression will prevent a coup against him. In that case, both the Russian and the Ukrainian people will suffer horribly. What do you think would happen with the war if Putin’s regime were to be overthrown? “Most likely, Ukraine would strengthen its demands and now want Crimea back.” Goemans: It’s possible that the entire Russian superstructure would be wiped out—not just Putin, but all his cronies, his security advisers, the oligarchs. That whole top layer could be removed. So the question is, if there’s a coup against Putin, what would the new Russian government insist on? They’re not necessarily all going to say, “Okay, sorry Ukraine, we made a mistake. Please excuse us.” And Ukrainians would not necessarily accept that anyway. Most likely, Ukraine would strengthen its demands and want Crimea back. Putin has said he wants to effect regime change in Ukraine—would a new government even have any credibility with Ukrainians? Ukrainians have become unified against Russia. Goemans: I don’t think so. There’s a new serious form of unity among the Ukrainian people and Ukrainian identity, and it’s in direct opposition to the Russians. It would be very dangerous for any Ukrainian government to be seen as colluding with Russia. Any such attempt would likely result in the formation of independent fighting units that would keep going to get the Russians out of Ukraine. What are the minimum terms the West can accept? The West cannot accept Putin’s winning in Ukraine, but they might we willing to accept concessions on the Luhansk and Donetsk regions, if Ukraine is willing to entertain that. Goemans: That’s an important question. The West—that is Western Democracies—cannot, in my opinion, accept a victorious Putin. The West is genuinely and correctly afraid of “salami tactics”—if he takes Ukraine, he will next take Georgia, and then he will go to the Baltics. Annexation wouldn’t end, so it has to stop now. Particularly because Putin so unmistakably declared his intentions in that speech on February 21st. Would the West accept Crimea as being Russian? I don’t know. Would the West accept Luhansk along the provincial administrative borders (which is not the same as the current line of control, which is currently roughly half of the of the provinces)? I doubt that. I think the West may demand a return to the status quo ante. I don’t know if they can get that. Maybe Ukraine would have to give up the entire administrative region of Luhansk and Donetsk. But the West will want to go back to the status quo. When do you think the war will end? Either in the next month and a half, or it’ll be years. Goemans: Either in the next month and a half, or it’ll be years. Months, if the new class of Russian conscripts in April fails to turn up. Otherwise I’m not optimistic. It’ll be ongoing bloodshed, pulverizing of Ukrainian cities, coupled with insurgencies, and Russia will never have full control of Ukraine. But going back to the video of the captured Russian soldier who was ashamed of taking part in the invasion of Ukraine: If he returns to Russia, he’ll most likely be killed. Yet, he’s speaking up and he’s hoping that he affects another guy, and then maybe two other guys, and it spreads like that. That’s how an army dissolves. On the other hand, that’s also how a Ukrainian army becomes more determined.

#### Ukrainian propaganda and advocacy is key to the war effort and defeating Russia.

Stuart A. Thompson 22 (reporter in the technology department covering misinformation and disinformation.) and Davey Alba (technology reporter covering disinformation. In 2019, she won a Livingston Award for excellence in international reporting and a Mirror Award) 3/3/2022, nytimes, Fact and Mythmaking Blend in Ukraine’s Information War, https://www.nytimes.com/2022/03/03/technology/ukraine-war-misinfo.html

Just days into the Russian invasion of Ukraine, a pilot with a mysterious nickname was quickly becoming the conflict’s first wartime hero. Named the Ghost of Kyiv, the ace fighter had apparently single-handedly shot down several Russian fighter jets. The story was shared by the official Ukraine Twitter account on Sunday in a thrilling montage video set to thumping music, showing the fighter swooping through the Ukrainian skies as enemy planes exploded around him. The Security Service of Ukraine, the country’s main security agency, also relayed the tale on its official Telegram channel, which has over 700,000 subscribers. The story of a single pilot’s beating the superior Russian air force found wide appeal online, thanks to the official Ukraine accounts and many others. Videos of the so-called Ghost of Kyiv had more than 9.3 million views on Twitter, and the flier was mentioned in thousands of Facebook groups reaching up to 717 million followers. On YouTube, videos promoting the Ukrainian fighter collected 6.5 million views, while TikTok videos with the hashtag #ghostofkyiv reached 200 million views. There was just one problem: The Ghost of Kyiv may be a myth. While there are reports of some Russian planes that were destroyed in combat, there is no information linking them to a single Ukrainian pilot. One of the first videos that went viral, which was included in the montage shared by the official Ukraine Twitter account, was a computer rendering from a combat flight simulator originally uploaded by a YouTube user with just 3,000 subscribers. And a photo supposedly confirming the fighter’s existence, shared by a former president of Ukraine, Petro Poroshenko, was from a 2019 Twitter post by the Ukrainian defense ministry. When the fact-checking website Snopes published an article debunking the video, some social media users pushed back. “Why can’t we just let people believe some things?” one Twitter user replied. “If the Russians believe it, it brings fear. If the Ukrainians believe it, it gives them hope.” **In the information war over the invasion of Ukraine, some of the country’s official accounts have pushed stories with questionable veracity, spreading anecdotes, gripping on-the-ground accounts and even some unverified information that was later proved false, in a rapid jumble of fact and myth.** The claims by Ukraine do not compare to the falsehoods being spread by Russia, which laid the groundwork for a “false flag” operation in the lead-up to the invasion, which the Biden administration sought to derail. As the invasion neared, Russia falsely claimed that it was responding to Ukrainian aggression and liberating citizens from fascists and neo-Nazis. And since the assault began, Russia made baseless claims that Ukrainians had indiscriminately bombed hospitals and killed civilians. **Instead, Ukraine’s online propaganda is largely focused on its heroes and martyrs, characters who help dramatize tales of Ukrainian fortitude and Russian aggression.** But the Ukrainian claims on social media have also raised thorny questions about how false and unproven content should be handled during war — when lives are at stake and a Western ally is fighting for its survival against a powerful invading force. **“Ukraine is involved in pretty classic propaganda,” said Laura Edelson, a computer scientist studying misinformation at New York University. “They are telling stories that support their narrative. Sometimes false information is making its way in there, too, and more of it is getting through because of the overall environment.” Anecdotes detailing Ukrainian bravery or Russian brutality are crucial to the country’s war plan, according to experts, and they are part of established war doctrine that values winning not just individual skirmishes but also the hearts and minds of citizens and international observers. That is especially important during this conflict, as Ukrainians try to keep morale high among the fighters and marshal global support for their cause. “If Ukraine had no messages of the righteousness of its cause, the popularity of its cause, the valor of its heroes, the suffering of its populace, then it would lose,” said Peter W. Singer, a strategist and senior fellow at New America, a think tank in Washington. “Not just the information war, but it would lose the overall war.”** In previous wars, combatants would try to sabotage enemy communication and limit the spread of wartime propaganda, even cutting physical communication lines like telegraph cables. **But there are fewer such cables in the internet age, so in addition to downing communication towers and disrupting pockets of internet access, the modern strategy involves flooding the internet with viral messages that drown out opposing narratives. That digital battle moved at startling speed, experts noted, using an array of social media accounts, official websites and news conferences streamed online to spread Ukraine’s message. “You have to have the message that goes the most viral,” Mr. Singer said.** That was the case with another report from Ukraine involving a remarkable confrontation on Snake Island, an outpost in the Black Sea. According to an audio recording released by Pravda, a Ukrainian newspaper, and later verified by Ukraine officials, 13 border guards were offered a frightening ultimatum by an advancing Russian military unit: Surrender or face an attack. The Ukrainians responded instead with an expletive, before apparently being killed. Audio of the exchange went viral on social media, and the clip posted on Feb. 24 by Pravda received more than 3.5 million views on YouTube. President Volodymyr Zelensky of Ukraine personally announced the deaths in a video, saying each guard would be awarded the title Hero of Ukraine. But just days later, Ukrainian officials confirmed in a Facebook post that the men were still alive, taken prisoner by Russian forces. Social media has become the main conduit for pushing the information, verified or not, giving tech companies a role in the information war, too. The fake Ghost of Kyiv video, for instance, was flagged as “out of context” by Twitter, but the montage posted to Ukraine’s official Twitter account received no such flag. The false photo posted by Mr. Poroshenko, the former Ukrainian president, also had no flag. While Twitter monitors its service for harmful content, including manipulated or mislabeled videos, it said tweets simply mentioning the Ghost of Kyiv did not violate its rules. “When we identify content and accounts that violate the Twitter Rules, we’ll take enforcement action,” the company said. In exercising discretion over how unverified or false content is moderated, social media companies have decided to “pick a side,” said Alex Stamos, the director of the Stanford Internet Observatory and a former head of security at Facebook. **“I think this demonstrates the limits of ‘fact-checking’ in a fast-moving battle with real lives at stake,” Mr. Stamos said. He added that technology platforms never created rules against misinformation overall, instead targeting specific behaviors, actors and content. That leaves the truth behind some wartime narratives, like an apparent assassination plot against Mr. Zelensky or simply the number of troops killed in battle, fairly elusive, even as official accounts and news media share the information.** Those narratives have continued as the war marches on, revealing the contours of an information war aimed not just at Western audiences but also at Russian citizens. At the United Nations on Monday, the Ukrainian ambassador, Sergiy Kyslytsya, shared a series of text messages that he said had been retrieved from the phone of a dead Russian soldier. **“Mama, I’m in Ukraine. There is a real war raging here. I’m afraid,” the Russian soldier apparently wrote, according to Mr. Kyslytsya’s account, which he read in Russian. The tale seemed to evoke a narrative advanced by officials and shared extensively on social media that Russian soldiers are poorly trained and too young, and don’t want to be fighting their Ukrainian neighbors. “We are bombing all of the cities together, even targeting civilians.” The story, whether true or not, appears tailor-made for Russian civilians — particularly parents fretting over the fate of their enlisted children, experts said. “This is an age-old tactic that the Ukrainians are trying to use, and that is to draw the attention of the mothers and the families in Russia away from the more grandiose aims for war onto, instead, the human costs of war,” said Ian Garner, a historian focusing on Russia who has followed Russian-language propaganda during the conflict. “We know that this is really effective.”** Official Ukrainian accounts have also uploaded dozens of videos purportedly showing Russian prisoners of war, some with bloody bandages covering their arms or face. In the videos, the prisoners are heard denouncing the invasion. The videos may raise questions about whether Ukraine is violating the Geneva Conventions, which has rules about sharing images of war prisoners. Russia has also engaged in its own form of mythmaking, but experts say it has been far less effective. Rather than targeting international observers with emotional appeals, Russia has focused on swaying its own population to build support for the battle, Dr. Garner said. Since Russian state media is still calling the conflict a “special military operation” and not a war — in line with the description used by President Vladimir V. Putin — state broadcasters are left “trying to talk about a war that is apparently not happening,” Dr. Garner said. **The Russian government “can’t play to its strongest narratives of individual sacrifice,” he added, instead relying on stories of Ukrainians bombing hospitals and civilians, providing no evidence. Ukraine’s efforts to amplify its own messages also leave little room for Russia to dominate the conversation, said Mr. Singer, the strategist from New America.** “A key to information warfare in the age of social media is to recognize that the audience is both target of and participant in it,” he said. He added that social media users were “hopefully sharing out those messages, which makes them combatants of a sort as well.”

#### Ukraine’s info war is key to demoralization, foreign assistance, and defeating Russia.

Sinan Aral 22 (director of the MIT Initiative on the Digital Economy and author of "The Hype Machine) 3/1/2022, Ukraine is winning the information war, Washington Post, <https://www.washingtonpost.com/outlook/2022/03/01/information-war-zelensky-ukraine-putin-russia/>

**Today, the information war in Ukraine is more intense, more tightly contested and arguably more important than ever because motivating volunteer fighters at home and encouraging foreign support abroad are critical to success. And this time, it seems, Russia is losing. Reports abound on social media of more than 4,000 Russian casualties, images of crippled Russian helicopters and armored vehicles and cellphone videos of savage Russian missile attacks on civilian targets. This mix of official Ukrainian war statistics combined with videos (both verified and unverified), posted by Ukrainian citizens and sympathizers from the front lines, is painting a vivid picture of a homegrown resistance successfully slowing the advance of a much larger and ostensibly better organized military machine. Facebook posts showing Ukrainians kneeling in front of tanks to stop their progress and Twitter images of women and children sheltering in subways and basements set the emotional backdrop of senseless aggression against a peaceful nation. Viral videos and audio clips evoke a defiant optimism impossible to ignore: Ukrainian President Volodymyr Zelensky appearing via his cellphone walking the streets of Kyiv, unharmed, in a “proof of life” demonstration emphasizing his willingness to stay and fight for his country, despite a U.S. offer to evacuate him, for example, or the recording of soldiers in an isolated Ukrainian outpost on Snake Island, in the Black Sea, cursing and telling off the Russian Black Sea Fleet. These stories are spreading rapidly on social media and subsequently echoing through official news channels in a media feedback loop that amplifies the information war and broadcasts it on television sets all over the world.** Zelensky, in particular, is deftly outmaneuvering Putin in this information war. He rallied Ukrainian men to defend their homeland, used the encrypted messaging platform [Telegram to speak directly to the Russian people](https://www.youtube.com/watch?v=OMTeSsnNCw0) to counter Putin’s narrative, urged the West to step up its assistance in defense of law, order and peace, and even [pleaded with foreigners](https://www.nbcnews.com/news/world/live-blog/russia-ukraine-live-updates-n1290057/ncrd1290087#liveBlogCards) to cross the border into Ukraine to defend Western democracy. While misinformation exists on both sides, Zelensky gives the impression that he’s more committed to truth and transparency. In contrast, Russia has been secretive, obfuscating the true extent of its incursion into Ukraine, and out of touch, airing the rambling addresses of its leader. It’s as if Putin has forgotten that social media transitioned from text to real-time video around the time of the Crimean annexation. In today’s information war, Russian news claiming Zelensky had turned tail and fled was swiftly countered by a video selfie of the Ukrainian president in Kyiv, vowing to defend his homeland. The symbolic contrast between Zelensky striding through war-torn streets, confident even under fire, and Putin, seated, hunched over a large wooden desk in the safety of a secure office hundreds of miles away from the fighting, is stark. This time, Facebook, YouTube, Twitter and Google are also proactively engaged in the information war. During the Crimean annexation, they were reactive and struggled to keep up with misinformation and false abuse reports. Today, in Ukraine, they have [banned Russian state-owned media from advertising on their platforms](https://www.axios.com/youtube-meta-twitter-restrict-russian-state-media-323d966f-531e-40f5-aa06-3b82998589df.html) and [defiantly fact-checked](https://www.theverge.com/2022/2/25/22950874/russia-facebook-blocked-roskomnadzor-media-censorship) Putin’s propaganda despite Russia’s protests and a full ban of Twitter and a partial ban of Facebook in Russia. Facebook has spun up a special operations center, staffed with native Russian and Ukrainian speakers, to monitor misinformation posted about the war, added warning labels to war-related images that its software detects are more than a year old, and restricted access to content from the state-affiliated Russian media outlets RT and Sputnik. YouTube is restricting access to Russian state-owned media outlets for users in Ukraine, removing Russian state-owned channels from recommendations, and limiting their content’s reach across the platform. Twitter has temporarily banned all ads in Ukraine and Russia, added labels to tweets with links to Russian state-affiliated media and downranked their content in algorithmic timelines. While numerous fake videos are circulating on TikTok about Ukraine, the Chinese-owned platform has no comprehensive policy on policing information about the conflict. Despite blocking state-owned Russian media in the European Union, this information flows freely in Ukraine and Russia on the platform, now dubbed “WarTok” by some observers, in part because it is organizing such videos into a convenient discover playlist by the same name. **The information war is critical to what happens next in Ukraine for several reasons. It motivates the resistance by inspiring Ukrainian citizens to take up arms in defense of their country and motivating them with social proof that they are united and not fighting alone. It encourages foreign assistance, pressuring Europe and the United States to step up their efforts to end the conflict. It fans the flames of protest in Russia, mobilizing the antiwar movement in Moscow and elsewhere in defiance of Putin’s aggression. And it may even eventually demoralize Russian troops, who must be wondering what on earth they are doing in Ukraine if the motivation for the intervention has been a lie all along. When Russia struck a Ukrainian television tower on Tuesday, it seemed to confirm Moscow’s keen awareness of the need to counter Ukraine’s information war and to highlight the importance of information in modern conflicts. Information campaigns are difficult to quantify during the fog of war. But while it is hard to pinpoint the extent to which the information war is contributing to the overwhelming international unity against Putin’s aggression, one thing is clear: Social media, mainstream media and the narrative framing of the invasion of Ukraine undoubtedly will play an important role in how this conflict ends. Now, vigilance and fortitude are not only needed on the battlefield, where lives and territory will be won and lost, but also will be essential online, where the hearts and minds of the world will be won or lost.**

#### Russian win would lead to escalation in multiple forums – goes global.

LIANA Fix 22 (Resident Fellow at the German Marshall Fund, in Washington, D.C). MICHAEL KIMMAGE (Professor of History at the Catholic University of America and a Visiting Fellow at the German Marshall Fund. )2/18/22, What If Russia Wins? A Kremlin-Controlled Ukraine Would Transform Europe, Foreign Affairs, <https://www.foreignaffairs.com/articles/ukraine/2022-02-18/what-if-russia-wins>

If Russia gains control of Ukraine or manages to destabilize it on a major scale, a new era for the United States and for Europe will begin. U.S. and European leaders would face the dual challenge of rethinking European security and of not being drawn into a larger war with Russia. All sides would have to consider the potential of nuclear-armed adversaries in direct confrontation. These two responsibilities—robustly defending European peace and prudently avoiding military escalation with Russia—will not necessarily be compatible. The United States and its allies could find themselves deeply unprepared for the task of having to create a new European security order as a result of Russia’s military actions in Ukraine. MANY WAYS TO WIN For Russia, victory in Ukraine could take various forms. As in [Syria](https://www.foreignaffairs.com/articles/syria/2016-03-20/russias-pyrrhic-victory-syria), victory does not have to result in a sustainable settlement. It could involve the installation of a compliant government in Kyiv or the partition of the country. Alternatively, the defeat of the Ukrainian military and the negotiation of a Ukrainian surrender could effectively transform Ukraine into a failed state. Russia could also employ devastating cyberattacks and disinformation tools, backed by the threat of force, to cripple the country and induce regime change. With any of these outcomes, Ukraine will have been effectively detached from the West. If Russia achieves its political aims in Ukraine by military means, Europe will not be what it was before the war. Not only will U.S. primacy in Europe have been qualified; any sense that the European Union or NATO can ensure peace on the continent will be the artifact of a lost age. Instead, security in Europe will have to be reduced to defending the core members of the EU and NATO. Everyone outside the clubs will stand alone, with the exception of Finland and Sweden. This may not necessarily be a conscious decision to end enlargement or association policies; but it will be de facto policy. Under a perceived siege by Russia, the EU and NATO will no longer have the capacity for ambitious policies beyond their own borders. The United States and Europe will also be in a state of permanent economic war with Russia. The West will seek to enforce sweeping sanctions, which Russia is likely to parry with cyber-measures and energy blackmailing, given the economic asymmetries. China might well stand on Russia’s side in this economic tit for tat. Meanwhile, domestic politics in European countries will resemble a twenty-first-century great game, in which Russia will be studying Europe for any breakdown in the commitment to NATO and to the transatlantic relationship. Through methods fair and foul, Russia will take whatever opportunity comes its way to influence public opinion and elections in European countries. Russia will be an anarchic presence—sometimes real, sometimes imagined—in every instance of European political instability. Cold War analogies will not be helpful in a world with a Russianized Ukraine. The Cold War border in Europe had its flash points, but it was stabilized in a mutually acceptable fashion in the Helsinki Final Act of 1975. By contrast, Russian suzerainty over Ukraine would open a vast zone of destabilization and insecurity from Estonia to Poland to Romania to Turkey. For as long as it lasts, Russia’s presence in Ukraine will be perceived by Ukraine’s neighbors as provocative and unacceptable and, for some, as a threat to their own security. Amid this shifting dynamic, order in Europe will have to be conceived of in primarily military terms—which, since Russia has a stronger hand in the military than in the economic realm, will be in the Kremlin’s interest—sidelining nonmilitary institutions such as the European Union. Russia has Europe’s largest conventional military, which it is more than ready to use. The EU’s defense policy—in contrast to NATO’s—is far from being able to provide security for its members. Thus will military reassurance, especially of the EU’s eastern members, be key. Responding to a revanchist Russia with sanctions and with the rhetorical proclamation of a rules-based international order will not be sufficient. IMPERILING EUROPE'S EAST In the event of a Russian victory in Ukraine, Germany‘s position in Europe will be severely challenged. Germany is a marginal military power that has based its postwar political identity on the rejection of war. The ring of friends it has surrounded itself with, especially in the east with Poland and the Baltic states, risks being destabilized by Russia. France and the United Kingdom will assume leading roles in European affairs by virtue of their comparatively strong militaries and long tradition of military interventions. The key factor in Europe, however, will remain the United States. NATO will depend on U.S. support as will the anxious and imperiled countries of Europe’s east, the frontline nations arrayed along a now very large, expanded, and uncertain line of contact with Russia, including Belarus and the Russian-controlled parts of Ukraine. Eastern member states, including Estonia, Latvia, Lithuania, Poland, and Romania, will likely have substantial numbers of NATO troops permanently stationed on their soil. A request from Finland and Sweden to gain an Article 5 commitment and to join NATO would be impossible to reject. In Ukraine, EU and NATO countries will never recognize a new Russian-backed regime created by Moscow. But they will face the same challenge they do with Belarus: wielding sanctions without punishing the population and supporting those in need without having access to them. Some NATO members will bolster a Ukrainian insurgency, to which Russia will respond by threatening NATO members. Ukraine’s predicament will be very great. Refugees will flee in multiple directions, quite possibly in the millions. And those parts of the Ukrainian military that are not directly defeated will continue fighting, echoing the partisan warfare that tore apart this whole region of Europe during and after World War II. The permanent state of escalation between Russia and Europe may stay cold from a military perspective. It is likely, though, to be economically hot. The sanctions put on Russia in 2014, which were connected to formal diplomacy (often referred to as the “Minsk” process, after the city in which the negotiations were held), were not draconian. They were reversible as well as conditional. Following a Russian invasion of Ukraine, new sanctions on banking and on technology transfer would be significant and permanent. They would come in the wake of failed diplomacy and would start at “the top of the ladder,” according to the U.S. administration. In response, Russia will retaliate, quite possibly in the cyber-domain as well as in the energy sector. Moscow will limit access to critical goods such as titanium, of which Russia has been the world’s second-largest exporter. This war of attrition will test both sides. Russia will be ruthless in trying to get one or several European states to back away from economic conflict by linking a relaxation in tension to these countries’ self-interest, thus undermining consensus in the EU and NATO. Europe’s strong suit is its economic leverage. Russia’s asset will be any source of domestic division or disruption in Europe or in Europe’s transatlantic partners. Here Russia will be proactive and opportunistic. If a pro-Russian movement or candidate shows up, that candidate can be encouraged directly or indirectly. If an economic or political sore point diminishes the foreign policy efficacy of the United States and its allies, it will be a weapon for Russian propaganda efforts and for Russian espionage. Much of this is already happening. But a war in Ukraine will up the ante. Russia will use more resources and be unchained in its choice of instruments. The massive refugee flows arriving in Europe will exacerbate the EU’s unresolved refugee policy and provide fertile ground for populists. The holy grail of these informational, political, and cyberbattles will be the 2024 presidential election in the United States. Europe’s future will depend on this election. The election of Donald Trump or of a Trumpian candidate might destroy the transatlantic relationship at Europe’s hour of maximum peril, putting into question NATO’s position and its security guarantees for Europe. TURNING NATO INWARD For the United States, a Russian victory would have profound effects on its grand strategy in Europe, Asia, and the Middle East. First, Russian success in Ukraine would require Washington to pivot to Europe. No ambiguity about NATO’s Article 5 (of the kind experienced under Trump) will be permissible. Only a strong U.S. commitment to European security will prevent Russia from dividing European countries from one another. This will be difficult in light of competing priorities, especially those that confront the United States in a deteriorating relationship with China. But the interests at stake are fundamental. The United States has very large commercial equities in Europe. The European Union and the United States are each other’s largest trade and investment partners, with trade in goods and services totaling $1.1 trillion in 2019. A well-functioning, peaceful Europe augments American foreign policy—on climate change, on nonproliferation, on global public health, and on the management of tensions with China or Russia. If Europe is destabilized, then the United States will be much more alone in the world. NATO is the logical means by which the United States can provide security reassurance to Europe and deter Russia. A war in Ukraine would revive NATO not as a democracy-building enterprise or as a tool for out-of-area expeditions like the war in Afghanistan but as the unsurpassed defensive military alliance that it was designed to be. Although Europeans will be demanding a greater military commitment to Europe from the United States, a broader Russian invasion of Ukraine should drive every NATO member to increase its defense spending. For Europeans, this would be the final call to improve Europe’s defensive capabilities—in tandem with the United States—in order to help the United States manage the Russian-Chinese dilemma. For a Moscow now in permanent confrontation with the West, Beijing could serve as an economic backstop and a partner in opposing U.S. hegemony. In the worst case for U.S. grand strategy, China might be emboldened by Russia’s assertiveness and threaten confrontation over Taiwan. But there is no guarantee that an escalation in Ukraine will benefit the Sino-Russian relationship. China’s ambition to become the central node of the Eurasian economy will be damaged by war in Europe, because of the brutal uncertainties war brings. Chinese irritation with a Russia on the march will not enable a rapprochement between Washington and [Beijing](https://www.foreignaffairs.com/articles/china/competition-with-china-without-catastrophe), but it may initiate new conversations.

#### Nuke war causes extinction AND outweighs other existential risks.

PND 16. internally citing Zbigniew Brzezinski, Council of Foreign Relations and former national security adviser to President Carter, Toon and Robock’s 2012 study on nuclear winter in the Bulletin of Atomic Scientists, Gareth Evans’ International Commission on Nuclear Non-proliferation and Disarmament Report, Congressional EMP studies, studies on nuclear winter by Seth Baum of the Global Catastrophic Risk Institute and Martin Hellman of Stanford University, and U.S. and Russian former Defense Secretaries and former heads of nuclear missile forces, brief submitted to the United Nations General Assembly, Open-Ended Working Group on nuclear risks. A/AC.286/NGO/13. 05-03-2016. <http://www.reachingcriticalwill.org/images/documents/Disarmament-fora/OEWG/2016/Documents/NGO13.pdf> //Re-cut by Elmer

Consequences human survival 12. Even if the 'other' side does NOT launch in response the smoke from 'their' burning cities (incinerated by 'us') will still make 'our' country (and the rest of the world) uninhabitable, potentially inducing global famine lasting up to decades. Toon and Robock note in ‘Self Assured Destruction’, in the Bulletin of Atomic Scientists 68/5, 2012, that: 13. “A nuclear war between Russia and the United States, even after the arsenal reductions planned under New START, could produce a nuclear winter. Hence, an attack by either side could be suicidal, resulting in self assured destruction. Even a 'small' nuclear war between India and Pakistan, with each country detonating 50 Hiroshima-size atom bombs--only about 0.03 percent of the global nuclear arsenal's explosive power--as air bursts in urban areas, could produce so much smoke that temperatures would fall below those of the Little Ice Age of the fourteenth to nineteenth centuries, shortening the growing season around the world and threatening the global food supply. Furthermore, there would be massive ozone depletion, allowing more ultraviolet radiation to reach Earth's surface. Recent studies predict that agricultural production in parts of the United States and China would decline by about **20 percent** for four years, and by 10 percent for a decade.” 14. A conflagration involving USA/NATO forces and those of Russian federation would most likely cause the deaths of most/nearly all/all humans (and severely impact/extinguish other species) as well as destroying the delicate interwoven techno-structure on which latter-day 'civilization' has come to depend. Temperatures would drop to below those of the last ice-age for up to 30 years as a result of the lofting of up to 180 million tonnes of very black soot into the stratosphere where it would remain for decades. 15. Though human ingenuity and resilience shouldn't be underestimated, human survival itself is arguably problematic, to put it mildly, under a 2000+ warhead USA/Russian federation scenario. 16. The Joint Statement on Catastrophic Humanitarian Consequences signed October 2013 by 146 governments mentioned 'Human Survival' no less than 5 times. The most recent (December 2014) one gives it a highly prominent place. Gareth Evans’ ICNND (International Commission on Nuclear Non-proliferation and Disarmament) Report made it clear that it saw the threat posed by nuclear weapons use as one that at least threatens what we now call 'civilization' and that potentially threatens human survival with an immediacy that even climate change does not, though we can see the results of climate change here and now and of course the immediate post-nuclear results for Hiroshima and Nagasaki as well.

## 3

#### CP TEXT: In a democracy, we ought to prioritize objectivity over advocacy except in instances of whistleblowing.

#### Whistleblowing *is* advocacy journalism – no new 1AR recontextualization

**Johnson 20**, Brett G.; Bent, Liz; Dade, Caroline (2020). An Ethic of Advocacy: Metajournalistic Discourse on the Practice of Leaks and Whistleblowing from Valerie Plame to the Trump Administration. Journal of Media Ethics, 35(1), 2–16. doi:10.1080/23736992.2020.1731314

Since the early 2000s, the role of leaks in journalism has grown contentious and morally ambiguous as the tension between transparency and national security has risen, technological advances have made leaking easier, and political divisiveness has driven audiences’ desire for insider information. Often, leaks come from a spirit of whistleblowing, where government officials seek to join the mission of the press to expose government wrongdoing. However, information leaked in such a public-interest spirit may still cause harm (e.g., the leaking of secret diplomatic cables could damage U.S. foreign relations), and information could be leaked for political purposes as much as public-interest purposes (e.g., leaks from the Trump White House seeking to expose tumult within the administration). As reliance on leakers becomes more routine in journalism, the press must be prepared to articulate (both to itself and to audiences) the moral parameters upon which it (as an institution) will rely. This exercise in metajournalistic discourse (Carlson, 2016) presents the press with a challenge: to shape the ethical discourse surrounding the routine use of whistleblowing leaks in its favor, it must address when the use of leaks (through granting anonymity to sources) is and is not justified. This paper explores how journalists between 2004 and 2018 discursively constructed the ethical and professional norms that the press should abide by as it acts as a conduit for leaks and whistleblowers. The purpose of looking at articles from over a little more than a decade is to examine how journalistic discourse surrounding leaks and whistleblowers has evolved vis-à-vis various “pivot points” in this short yet significant time period (Thomas & Perreault, 2018). The paper is founded on the theoretical notion that journalism is a discursive institution (Carlson, 2016; Hanitzsch & Vos, 2017), and that ethical matters are key tools that journalists use to discursively construct the field (Singer, 2015). The paper analyzes the ethical discourse surrounding leaks through the lens of three ethical theories: a Kantian perspective, whereby journalists categorically protect leakers as autonomous beings; a utilitarian perspective, whereby the ultimate benefits brought about by leaked information justify the greater (and sometimes nefarious) enterprise of using anonymous sources; and a perspective that judges journalism’s ethics based on journalism’s duty to democracy (Allen & Hindman, 2014). The longitudinal focus of the study allows for the examination of shifts and evolutions in the discursive construction of journalism vis-à-vis leaks, including any potential inconsistencies and contradictions. Additionally, the incorporation of ethical theory allows scholars and practitioners to understand how a variety of ethical perspectives have been invoked (either exclusively or in concert) to justify and set boundaries around the use of leaks in journalism. The paper relies on an analysis of articles from a variety of online journalistic industry publications collected using a proprietary database. Findings reveal the discourse shifted over the last 14 years to embrace an advocacy role thrust upon journalists as they cultivate relationships with leakers as a means to assert journalism’s central role in the whistleblowing process. However, despite embracing this advocacy role, journalists perpetuate contradictory discourses with regard to the ethical use of anonymous leaks, as evidenced by a reluctance to admit their overreliance on access to public officials and a lack of material support for leakers who face prosecution. These findings are significant to the field of media ethics for at least two reasons. First, they strengthen the intersection between journalism ethics and the broader field of journalism studies by identifying the role of metaethical theory in the discursive construction of journalism (Allen, 1995, 1996). Second, they answer Wasserman’s (2017) call for greater research into the ethics of the relationship between journalists and sources. Journalism as a discursive institution Hanitzsch and Vos (2017) contend that journalism by its very nature is a discursive institution and is constantly in a state of“struggle over discursive authority in conversations about the meaning and role of journalism in society” (p. 116). In particular, Thomas and Finneman (2014) argue that journalism tends to “assert[] its own value to society” – namely its“centrality to the operation of democratic governance” – through the discourses that journalists create (p. 173). Similarly, Carlson (2016) contends that the source of journalism’s self-established central meaning can best be found via the theoretical lens of “metajournalistic discourse.” Carlson proposes that such discourse sets the legitimizing boundaries defining the core of what is and is not journalism. This theory is based on several premises, two of which are important for this paper. First, journalism “is not a stable, unified entity, but an activity prone to modification and variety” (Carlson, 2016, p. 354). Second, journalism is highly contextual, with its definitions, boundaries, and legitimacy depending on the many ways it can be performed and on the many events and challenges that the field must constantly confront (p. 354). Thus, scholars would be wise to study journalism as a discursive field within particular contexts and compare their findings with one another to gain a better understanding of how the discourse encompassing the field shifts or remains steadfast from case to case. The role of leaks in journalism offers a significant case (or, rather, a set of cases) for studying metajournalistic discourse, particularly due to the complex ethical issues evoked. Several scholars have previously examined how journalists have shaped the discourse surrounding leaks when confronted with a single major leak-related event. Hindman and Thomas (2014) found that newspaper editorials published following the 2010 release of secret diplomatic cables by WikiLeaks argued the essential ethical scruples of professional journalism were needed to counter the release of decontextualized information. Carlson (2010) examined the contentious battle of journalism’s collective memory of the coverage of the Watergate scandal – a transformative moment in the professionalization of journalism – following the revelation that former associate director of the FBI Mark Felt was Woodward and Bernstein’s “Deep Throat” source. The battle was waged along the lines of the ethics of using anonymous sources (discussed below). Critics of the press argued that Felt’s selfish motives tainted the press’s coverage of Watergate, while journalists argued that the outcome of the Watergate reporting justified the use of anonymous sources. Finally, Thomas and Perreault (2018) found that coverage of major leaks stories from the early 2010s sought to either connect or distinguish the actions of Daniel Ellsberg (the leaker in the 1971 Pentagon Papers case) to/from the leaking of Chelsea Manning and Edward Snowden. Their findings, like Carlson’s, show that the discursive battle over the role of leaks in journalism is fraught and divisive. The present study builds on the work of these scholars by answering the call of Thomas and Perreault (2018) to engage in a longitudinal study of changes in journalistic discourses surrounding leaks, particularly changes in response to major events involving leaks – what Thomas and Perreault call “pivot points” (2018, p. 14).

#### Whistleblowing is *critical* to disease prevention and accountability

Dreyfus and Galizzi 20 — (Suelette Dreyfus, PhD, Researcher at the University of Melbourne, and Bruno Galizzi, part of the Blueprint for Free Speech Spain, “Protect whistleblowers, protect everyone's health”, 5-19-20, Blueprint for Free Speech, Available Online at <https://www.blueprintforfreespeech.net/en/news/protect-whistleblowers-protect-everyones-health>, accessed 9-8-21, HKR-AM)

The worldwide spread of coronavirus has highlighted the importance of whistleblowers like never before. The medical community caught a glimpse of the dark emergence of the virus when Dr. Li Wenliang from China tried to warn colleagues about the disease. Like many, he suffered retaliation from local officials for telling his community unpleasant truths. The highest levels of government intervened to rehabilitate his reputation only when he had died from the virus.

Whistleblowers from around the world are revealing irregularities that are hidden by governments, companies and institutions. They reveal when health workers are put at risk for lacking the proper protective equipment; they tell us when the supply chains that bring us food - or medical supplies - are being tampered with or corrupted, etc. For this reason, more than 100 civil society organizations, journalists, unions, and experts from around the world released a statement asking to protect the whistleblowers in times of Covid-19. The letter emphasizes the centrality of citizens and workers in "guaranteeing that proper accountability is maintained in our governments, corporate institutions and markets, and in the defense of their human rights and the freedoms of all people."

Neither heroes nor martyrs

In Spain, the State Confederation of Medical Unions (CESM) has filed a complaint with the Supreme Court about the distribution of defective medical material, based on situations that have been experienced at the local level. Not surprisingly, unions are valuable institutions to which an whistleblower could turn to report a fact, particularly on public health and safety.

Although this is not always the case in Spain, many unions and organizations have exposed the lack or non-compliance of protection measures, or the lack of means to fight the virus, unleashing the #NiHéroesNiMartires trend. Protecting those who blow the whistle, in this case, also saves lives. The European Center for Disease Prevention and Control (ECDC) places Spain among the countries with the highest percentage of infected among its health personnel. Even when we applaud them from our balconies every day, healthcare workers continue to face a double vulnerability at the same time: contagion and retaliation. In fact, in recent weeks, many have been exposed to prevent or combat crimes or irregularities. The lack of protection they have contrasts, without a doubt, with the value that the public interest complaints they share provide us.

This is something that does not happen only in the field of health care, as we have seen in the globally known case of Tim Bay, Amazon's vice president, who decided to leave one of the most powerful companies after having witnessed the dismissal of employees who had denounced the vulnerabilities of workers in the warehouses of the technological giant.

Just a fight against corruption?

Some organizations are recognizing the vital value of protecting whistleblowers for the duration of the pandemic, not afterward. The Group of States against Corruption (GRECO) has recently released a series of legal references to prevent and fight corruption during this period. They recognize that fraudulent practices have an effect on medical services, making them more expensive and of lower quality, leading to unequal access to them, to the detriment of the most vulnerable populations.

The report again points out that the protection of whistleblowers is essential to prevent the effect of corruption on public institutions and the management of funds. Once again, protecting those who warn against corruption also saves lives, since it allows strengthening the health system by protecting those who report corruption from within. Let's not forget that the economic costs of corruption for Spain have been estimated by different sources, reaching 90 billion euros, according to a report published by the Los Verdes / ALE alliance in the European Parliament, defining it as 90% of public health spending by 2018.

But the protection of whistleblowers goes further, and has an effect on the protection of the environment, nuclear safety, transport, the quality of products, distribution chains and, as we have already seen, public health. This is recognized by the rapporteur of the Committee on Legal Affairs of the European Parliament Sylvain Waserman, in his latest report last October.

In Poland, Andrzej Hawranek, Director of the State Health Inspectorate, reported the lack of sufficient evidence to determine the spread of the virus in the city of Krakow. Thanks to his publications on the local situation, he forced the health and epidemiological units to report daily on the situation. The knowledge and democratization of public, updated and reliable information on the state of the pandemic is essential to be able to carry out successful and tailored management. Protecting whistleblowers and our right to know also saves lives.

Towards the new normality, protecting those who protect us

In a bitter irony, Spain is one of the countries hardest hit by the coronavirus and, at the same time, one of the few countries in the European Union that does not have a national law to protect whistleblowers.

Now is the time to change that. The transposition of the European Directive 2019/1937 is an opportunity to incorporate legal provisions at the national level, and promote a cultural change to provide citizens with mechanisms for active participation in the protection of the public interest.

Last February, when the world was yet another, Blueprint for Free Speech, together with the National Commission of Markets and Competition, organized a public event bringing together spokespersons and representatives of political parties precisely to discuss this matter. That event was the first time that a wide and diverse party table (Ciudadanos, Esquerra Republicana, Partido Popular, Unidas Podemos, Vox) sat publicly in Madrid to discuss protection of whistleblowers.

Different positions were heard, some of them distant from what was established by the aforementioned European Directive, but all recognized the complete need to protect alerters in an integral way. Civil society was once again ahead of the interests of legislators proposing various alternatives that were waiting to be debated, one of them currently on the Table of Congress.

In this period of de-escalation and transition to the "new normal" one cannot look the other way. The iron and urgent commitment must be doubled to protect the whistleblowers, who have demonstrated to promote a more just and democratic operation of the institutions, in defense of our fundamental and human rights.

#### The EU is a global leader in pandemic response but increased cohesion and health security is key

**Veron and Di Ciommo 20** – Veron, Pauline, and Di Ciommo, Mariella, October 2020 – “The EU’s Role in Global Health in the Era of COVID-19,” The European Centre for Development Policy Management, Pauline Veron is a Junior Policy Officer for the European External Affairs programme (75%) and Migration programme (25%).  She has an undergraduate degree in Political Science Science Po Strasbourg with time at Trinity College Dublin, and a Masters in Public Administration and another in International Relations and Regional Integration Process also from Science Po Strasbourg. Mariella Di Ciommo is a Policy Officer in the European External Affairs programme. Before joining ECDPM she worked in different roles at Development Initiatives in the UK and then in Brazil. In Brazil, as a Strategic Partnerships Manager, she led DI’s work on data for development at country level and international engagement on South-South cooperation, climate finance and poverty. She holds a master in Social Anthropology from the London School of Economics and one in Economics from Bocconi University. [Harker KB]

The COVID-19 pandemic is a real test for the EU’s international leadership ambitions. To some extent, the EU has risen to the healthcare and political challenge of mounting an effective response to the pandemic by putting together a collective and comprehensive ‘Team Europe’ package, leveraging its research and innovation assets, and catalysing bold, multilateral action at a time when global governance is being questioned. It has successfully promoted global initiatives, such as the ACT Accelerator, and has positioned itself as a convener of both state and non-state actors. Yet, given the scale and urgency of the challenge, the EU’s response would have been much stronger had there been more coherence among the various areas of action and more coordination with member states. Better coherence and more coordination within Europe could be achieved only if the ‘rules of the game’ with member states and within EU institutions were to be changed. It would also require prioritising health in an already packed political agenda. A robust strategy linking the various levels and spheres of EU intervention would help to make EU action on global health more impactful and consistent. But a strategy alone will not do the trick. Political energy needs to be expended on overcoming the bottlenecks that arise from the EU’s limited health competences, the differing mandates of EU institutions and their limited resources, the divergent interests and views of EU member states that hamper stronger collaboration across the EU institutions and with member states – while still preserving the variety of European experiences in health and their respective added values. The EU’s standing as a global health actor suffered greatly from its inability to control the crisis within its own borders at the onset of the outbreak. While the German EU Council Presidency and the leadership of the European Commission would appear to have generated a political momentum for strengthening health sovereignty and European structures for crisis preparedness, it is unclear whether this momentum will hold beyond the crisis, given the many other pressing priorities, and be able to reverse long-standing battles over health competences. 22 The linkages between domestic and international EU action on health also need to be reinforced. Although many effective plans have been made and the EU possesses good capabilities, if it wants to be a strategic global player, it will need to adopt a more joined-up approach to global health beyond humanitarian and development assistance to include services with a domestic mandate, but with international relevance. The shared sense of purpose that drove the EU’s response to COVID-19 needs to be retained in adopting an EU-wide approach that can harness the best of EU institutions across DGs – for example on R&I, trade, health, international partnerships and others. Partner countries would benefit much more from such integrated and comprehensive offers than from aid alone. Such an integrated approach also lies the core of the SDGs and should inform any future new EU strategy for the health sector. Where international cooperation is concerned, Team Europe could form an opportunity to deepen collaboration at the EU and among the member states. However, it would first need to resolve some of the ambiguities about what novelties it entails and how different – or similar – it is to other initiatives with similar aims (such as working better together, joint implementation and joint programming). A close monitoring of Team Europe and public, open communication about its achievements and limitations will be crucial. If the EU wishes to play a bigger role in global health, it will have to upscale its support for health systems as a whole, as opposed to simply producing a narrow emergency response to future outbreaks. This is the soundest health investment for the economy and for human development and is in line with the approach outlined in the 2010 Communication on the EU’s role in global health. It will require action at country, regional and global level.

#### New diseases cause extinction – uniquely probable due to environmental changes.

Mooney 21 — (Tom Mooney, Senior Communications & Advocacy Manager for the Coalition for Epidemic Preparedness Innovations, “Preparing for the next “Disease X””, CEPI, 2-1-21, Available Online at <https://cepi.net/news_cepi/preparing-for-the-next-disease-x/>, accessed 9-10-21, HKR-AM)

Disease X represents the knowledge that a serious international pandemic could be caused by a pathogen currently unknown to cause human disease. It was first included in the WHO’s list of priority pathogens in 2018. COVID-19 represents the first occurrence of Disease X since its designation was established, emerging much sooner than anticipated.

While the world battles to control COVID-19, we know that future outbreaks of Disease X are **inevitable**. Our interconnected world has made us more vulnerable than ever to the rapid spread of new emerging infectious diseases. Rapid urbanisation, deforestation, intensive agriculture, livestock rearing practices, climate change and globalisation are increasing opportunities for animal-to-human contacts and for human-to-human transmission of disease on a global scale. **The threat of Disease X infecting the human population, and spreading quickly around the world, is greater than ever before.**

COVID-19: CEPI’s first Disease X

When CEPI was established in 2017 we classed Disease X as a serious risk to global health security, for which the world needed to prepare. Prior to the COVID-19 pandemic, CEPI had initiated a rapid response programme—including mRNA vaccines—against novel pathogens. Our goal was to be able to start safety testing of vaccines within months of a new pathogen being genetically sequenced.

In January 2020—within 2 weeks of the publication of the genome sequence of the COVID-19 virus, and with just 141 confirmed cases of COVID-19 globally—CEPI began work on developing vaccine candidates against the virus. CEPI was able to move with such agility because it had already identified coronaviruses as serious threats and invested over $140 million in the development of vaccines against MERS. Within a few weeks of the COVID-19 outbreak, most of CEPI’s MERS vaccine development partners had pivoted to work on the new virus.

Just one year later, two CEPI-supported vaccine candidates are amongst the first in the world to be approved by regulatory authorities and deployed to protect people from the virus; and potentially over one billion doses of vaccine enabled by CEPI investment will be available to the COVAX Facility in 2021.

The speed of the scientific progress has been astounding, compressing vaccine development—which typically takes a decade into the space of 12 months—yet over 2 million lives have been lost to COVID-19 already and economies the world over have been devastated.

So, could we move even faster next time?

What next for Disease X?

We don’t know where or when the next Disease X will emerge, only that it will. As COVID-19 has demonstrated, diseases do not respect borders so we need to be prepared on a global scale to respond to future outbreaks of Disease X, and we need to do it fast.

In many ways COVID-19 is a proof of concept for rapidly developing a vaccine against a new viral threat. Scientists were already working on vaccines against MERS and SARS—pathogens from the same virus family as COVID-19—which gave us a crucial head start this time around.

25 viral families are known to infect humans, and over 1.6 million yet-to-be-discovered viral species from these viral families are estimated to exist in mammal and bird hosts—the most important reservoirs for viral zoonoses.

We cannot develop vaccines against all potential viral threats, but we could produce a library of prototype vaccines and other biological interventions against representative pathogens from each of these 25 viral families. Having such a library of prototype vaccines, which could be ‘pulled off the shelf’, and advanced into clinical testing as soon as a related threat emerges would dramatically accelerate the development of vaccines.

We also know that beta coronaviruses that cause SARS and MERS are associated with case fatality rates of 10-35% (25-88 times worse than COVID-19) and that coronaviruses circulate widely in animal reservoirs. The emergence of a coronavirus variant combining the transmissibility of COVID-19 with the lethality of SARS or MERS would be utterly devastating. We must minimise this threat as a matter of urgency. One way to do this in the long-term would be to develop a vaccine that provides broad protection against coronaviruses in general.

If we can produce vaccines against Disease X in a matter of months instead of a year or more, we could revolutionise the world’s ability to respond to epidemic and pandemic diseases. **Disease X and other emerging infectious diseases pose an existential threat to humanity**. But for the first time in history, with the right level of financial commitment and political will, we could credibly aim to eliminate the risk of epidemics and pandemics.

## CASE

### ADV. 1

**Collapse of democracy’s inevitable---transition to Chinese autocracy solves.**

**Schiavenza 17** (Matt; 1/19/17; Senior Content Manager at Asia Society; Asia Society; “Could China's System Replace Democracy?”; <http://asiasociety.org/blog/asia/could-chinas-system-replace-democracy>; DOA: 12/6/17)

Two decades later, this notion seems increasingly unfeasible. **Democracy is** **struggling**. According to Freedom House, the number of democracies has **fallen since** reaching a peak in **2006**. The world’s non-democracies, meanwhile, have become **more authoritarian**. Russia, once a tentative democracy, is now under the control of Vladimir Putin, a **nationalist leader** whose regime has centralized power, targeted opposition journalists, and seized sovereign territory of other countries. Then there’s China. For years, conventional wisdom stated that as the People’s Republic grew more prosperous, the country would naturally transition to a liberal democracy. But this prediction — dubbed the “China Fantasy” by the author James Mann — has not happened. If anything, China’s economic success has only **further solidified the C**hinese **C**ommunist **P**arty: The current ruler, Xi Jinping, is widely considered to be the country’s **most powerful** since Deng Xiaoping. Democracy’s ill health has also **infected the U**nited **S**tates **and Europe**. The president of Hungary, a formerly Communist state whose accession to the European Union in 2004 was a triumph for the West, has sought to “**end liberal democracy**” in his country by clamping down on press freedom and judicial independence. These trends are also evident in neighboring Poland. Far-right parties — like the United Kingdom Independence Party, the orchestrator of Brexit — have **gained popularity** across the continent. During his successful campaign for president of the United States, Donald Trump expressed, at best, an indifference toward democratic norms and ideals. Trump called for his opponent, Hillary Clinton, to be imprisoned, raised false accusations of voter fraud, threatened legal action against the media, and refused to commit to honoring the results of the election. Trump has repeatedly professed his **admiration for Putin**, Russia’s dictatorial leader, for being “**a strong leader**”; as president-elect, he **praised the Kazakh dictator** Nursultan Nazarbayev for “achieving a miracle” in his country. Where Did Democracy Go Wrong? According to Brian Klaas, author of the new book The Despot’s Accomplice: How the West Is Aiding and Abetting the Decline of Democracy, there are **three main reasons**. One is **American hypocrisy**, or, as Klaas puts it, the “Saudi effect.” President George W. Bush made democracy promotion an explicit centerpiece of American foreign policy during his second inaugural speech in 2005, yet the following year when Hamas won democratic elections to govern the Gaza Strip, the U.S. refused to honor the results. And as Washington invested billions of dollars and thousands of American lives to **impose democracy by force** in Iraq and Afghanistan, the U.S. government forged a military deal with Uzbekistan’s tyrannical regime and maintained a close relationship with Saudi Arabia, one of the world’s most repressive countries. A second reason for democracy’s decline is the **resurgence of China and Russia**. As China’s economic rise continued without interruption in the quarter-century after Tiananmen Square, observers began wondering whether the Chinese miracle was **because of**, rather than in spite of, **its autocratic government**. (The slower growth of India, a messy democracy, only seemed to strengthen this argument.) And while Russia’s economic fortunes in the Putin era have lived and died with the price of oil, there’s little question that the country is **wealthier and more stable** than it had been under Boris Yeltsin. The success of both countries, sustainable or not, seemed to indicate that democracy and growth were not necessarily co-dependent. Klaas’ third reason is the **weaknesses embedded in** modern **American democracy** itself. Last year’s presidential election was a multi-billion dollar, 18-month saga that resulted in the election of a candidate who had **never served in government** or the military and one, incidentally, who earned **three million fewer votes** than his main opponent. “Not many people looked at our election and thought that they were missing out,” Klaas told Asia Society. “I even heard a Thai general say that if ‘democracy means Donald Trump, **we don’t want it**.’” What About China's System? There’s **no doubt** that liberal democracy is in crisis. But the next question — whether plausible alternatives exist — is less certain. Consider China. The country’s ability to push through **major infrastructure** projects, such as a nationwide high-speed rail network, without political obstruction has **dazzled Westerners** frustrated at the gridlock endemic to American politics. In a 2010 episode of Meet the Press, the New York Times columnist Thomas Friedman famously admitted to fantasizing that the U.S. “could be China for a day” **simply** as a means **to get things done**. Daniel Bell, a professor of political science at Shandong University in eastern China, has written extensively about the **meritocratic advantages** of China’s political system. Chinese leaders must pass a series of examinations and negotiate a complex bureaucracy before achieving national power. Xi Jinping may have benefited from nepotism: His father, Xi Zhongxun, was a key Mao-era official. But the Chinese president also accumulated experience as the governor of two major Chinese provinces and a stint as vice president. This, Bell argues, has given Xi legitimacy in spite of never having to face voters. “I disagree with the view that there’s only one morally legitimate way of selecting leaders: **one person, one vote**,” Bell said in an appearance at Asia Society in 2015. State-run media in China spun the chaotic outcome of the Arab Spring uprisings as an example of democracy’s inherent flaws. The election of Donald Trump only served to further **reinforce this notion**. “I remember talking to the Chinese ambassador, and he made a crack about how in the U.S. you can be a nobody one day and the next day rise to power,” said Isaac Stone Fish, a senior fellow at Asia Society, “and you can’t do that in China because you have to go through all these different levels and rise through the system.” Bell acknowledges that the Chinese system has serious drawbacks. The prohibition of free speech, ban on political opposition, and absence of an independent judiciary mean that there are no checks against official abuse of power, something that has emerged as a major crisis in the past decade in the country. The high-profile anti-corruption campaign launched by President Xi has reduced visible signs of excess, such as lavish banquets and fast cars. But critics believe that the campaign also serves as cover for Xi’s sidelining of rivals within the Communist Party. Defenders of China’s Communist Party point to the country’s near-**four-decade** run of **economic growth** as proof that the system works. But in structural terms, the modern Party is little different from the one that, under Chairman Mao, presided over widespread political persecution, a deadly famine, and a disastrous period of social upheaval known as the Cultural Revolution. Even after Deng Xiaoping reversed Mao’s policies and adopted a pragmatic economic approach, the Party has still implemented policies whose consequences threaten stability and prosperity. The One Child Policy, adopted in 1980 without public debate, created a demographic imbalance that, three decades later, has prematurely reduced China’s working-age population. Even the much-vaunted record of economic growth is built on a shaky foundation of debt-fueled investment. "There have been 30 instances in the postwar period when a country's debt increased by 40 percent over a 5-year horizon," Ruchir Sharma, an economics expert at Morgan Stanley, said of China in an appearance at Asia Society in December. “And in 100 percent of these instances, the country got into a deep economic trouble within the next five years." China has taken steps to **systematize its government** by introducing a mandatory retirement age for senior officials and establishing term limits for its leaders. The Communist Party’s Standing Committee of the Politburo, a seven-man body that stands atop China’s government pyramid, is designed to **divide** the **responsibilities of government** and ensure **no one individual assumes too much power**. The behavior of Xi Jinping over the past three years, though, has raised questions whether these norms are durable. Xi has assumed positions within the Chinese government once shared by fellow leaders and has weakened Li Keqiang, his prime minister, by denying him the office’s traditional stewardship of economic policy. Xi has abetted and re-established a cult of personality, something explicitly discouraged in China after the Maoist era, by encouraging the singing of songs in his name. And, as the Wall Street Journal recently reported, there are questions that Xi may not name a successor at this fall’s 19th Party Congress in order to continue as president beyond the customary 10-year term. The Consequences of Democracy's Decline China, for what it’s worth, has never claimed that its system of government was universally applicable. In contrast to the United States or the Soviet Union, Beijing has never tried to install its system in a foreign country by force. Even still, democracy’s decline may prove **advantageous to China** in other ways. For one, it would **weaken the democratic movement** in Hong Kong, which has vied with pro-Beijing elements for political control of the Chinese territory, and deter would-be Chinese dissidents from challenging Communist Party rule on the mainland. In addition, Klaas argues, the American absence of support for democracy **leaves a vacuum** in emerging states that Washington’s geopolitical rivals in Moscow and **Beijing might fill**. “The ‘America First’ mentality, or the mentality that it’s not our business, makes the mistake that thinking that the withdrawal of Western influence means there’s self-determination,” says Klaas. “ [But what it means is] that **China** and Russia **control things**. It’s not something where if the West leaves, then, say, Malawi will be free to choose. It’s a **global foreign policy battle**, and the West’s losses are **China's** and Russia’s **gains**.” Before the U.S. can promote democracy overseas, though the country may need to firm up support for it at home. A Harvard study conducted in November found that just 19 percent of American millennials believe that a military takeover is not legitimate in democracy compared to 45 percent of those older. 26 percent of millennials likewise feel that choosing leaders through free elections is “unimportant,” a sentiment shared by just 14 percent of Baby Boomers. “A lot of people growing up now **don’t understand** what it’s like not to live in a free society in the West,” says Klaas. “That, combined with the "end of history," assumed that democracy is the natural way of things. “In fact, democracy is the **least organic and least natural** way we’ve had."

**Democracy doesn’t solve war - it increases hostility.**

**Ghatak et al. 17**—Sam Ghatak is a Lecturer in Political Science at the University of Tennessee Knoxville; Aaron Gold is a PhD Student in Political Science at UT Knoxville; Brandon C. Prins is a Professor and Director of Graduate Studies of Political Science at UT Knoxville [“External threat and the limits of democratic pacifism,” *Conflict Management and Peace Science*, Vol. 34, No. 2, p. 141-159, Emory Libraries]

Conclusion It has become a **stylized fact** that dyadic democracy lowers the hazard of armed conflict. While the Democratic Peace has faced many challenges, we believe the most significant challenge has come from the argument that the pacifying effect of democracy is **epiphenomenal to territorial issues**, specifically the external threats that they pose. This argument sees the lower hazards of armed conflict among democracies **not** as a product of shared norms or institutional structures, but as a **result of settled borders**. Territory, though, remains only one geo-political context generating threat, insecurity, and a higher likelihood of armed conflict. Strategic rivalry also serves as an environment associated with fear, a lack of trust, and an expectation of future conflict. Efforts to assess democratic pacifism have largely **ignored rivalry** as a context conditioning the behavior of democratic leaders. To be sure, research demonstrates rivals to have higher probabilities of armed conflict and democracies rarely to be rivals. But fundamental to the Democratic Peace is the notion that even in the face of difficult security challenges and salient issues, dyadic democracy will associate with a lower likelihood of militarized aggression. But the presence of an **external threat**, be that threat disputed territory or strategic rivalry, may be the key mechanism by which democratic leaders, owing to **audience costs**, **resolve** and **electoral pressures**, **fail to resolve problems nonviolently**. This study has sought a ‘‘hard test’’ of the Democratic Peace by testing the conditional effects of joint democracy on armed conflict when external threat is present. We test three measures of threat: territorial contention, strategic rivalry, and a threat index that sums the first two measures. For robustness checks, we use two additional measures of our dependent variable: fatal MID onset, and event data from the Armed Conflict Database, which can be found in our Online Appendix. As most studies report, democratic dyads are associated with less armed conflict than mixed-regime and autocratic dyads. In every one of our models, when we control for each measure of external threat, joint democracy is strongly negative and significant and each measure of threat is strongly positive and significant. Here, liberal institutions maintain their pacific ability and external threats clearly increase conflict propensities. However, when we test the **interactive relationship** between democracy and our measures of external threat, the pacifying effect of democracy is **less visible**. Park and James (2015) find some evidence that when faced with an external threat in the form of territorial contention, the pacifying effect of joint democracy holds up. This study does not fully support the claims of Park and James (2015). Using a longer timeframe, we find more **consistent evidence** that when faced with an external threat, be it territorial contention, strategic rivalry, or a combination, **democratic pacifism does not survive**. What are the implications of our study? First, while it is clear that we do not observe a large amount of armed conflict among democratic states, if we organize interstate relationships along a continuum from highly hostile to highly friendly, we are probably observing what Goertz et al. (2016) and Owsiak et al. (2016) refer to as ‘‘lesser rivalries’’ in which ‘‘both the frequency and severity of violent interaction decline. Yet, the sentiments of threat, enmity, and competition that remain—along with the persistence of unresolved issues—mean that lesser rivalries still experience isolated violent episodes (e.g., militarized interstate disputes), diplomatic hostility, and non-violent crises’’ (Owsiak et al., 2016). Second, our findings show that the pacific benefits of **liberal institutions** or externalized **norms** are **not** always able to lower the likelihood of armed conflict when faced with external threats, whether those hazards are disputed territory, strategic rivalry, or a combination of the two. The structural environment clearly influences democratic leaders in their foreign policy actions more than has heretofore been appreciated. **Audience costs**, **resolve**, and **electoral pressures**, produced from external threats, are **powerful forces** that are present even in jointly democratic relationships. These forces make it difficult for leaders to **trust one another**, which **inhibits conflict resolution** and facilitates persistent **hostility**. It does appear, then, that there is a **limit** to the Democratic Peace.

#### Democratic transitions produce transition wars – statistics and empirics.

Mansfield and Snyder 95 – Hum Rosen Professor of Political Science, Chair of the Political Science Department, and Director of the Christopher H. Browne Center for International Politics at the University of Pennsylvania; Robert and Renée Belfer Professor of International Relations in the Department of Political Science and a Member of the Arnold A. Saltzman Institute of War and Peace Studies at Columbia University (Edward D. and Jack L., “Democratization and War,” *Foreign Affairs*, 1 May 1995, Web, accessed 20 July 2013, <http://www.foreignaffairs.com/articles/50974/edward-mansfield-and-jack-snyder/democratization-and-war>

But countries do not become mature democracies overnight. They usually go through a rocky transition, where mass politics mixes with authoritarian elite politics in a volatile way. Statistical evidence covering the past two centuries shows that in this transitional phase of democratization, countries become more aggressive and war-prone, not less, and they do fight wars with democratic states. In fact, formerly authoritarian states where democratic participation is on the rise are more likely to fight wars than are stable democracies or autocracies. States that make the biggest leap, from total autocracy to extensive mass democracy--like contemporary Russia--are about twice as likely to fight wars in the decade after democratization as are states that remain autocracies.¶ This historical pattern of democratization, belligerent nationalism, and war is already emerging in some of today's new or partial democracies, especially some formerly communist states. Two pairs of states--Serbia and Croatia, and Armenia and Azerbaijan--have found themselves at war while experimenting with varying degrees of electoral democracy. The electorate of Russia's partial democracy cast nearly a quarter of its votes for the party of radical nationalist Vladimir Zhirinovsky. Even mainstream Russian politicians have adopted an imperial tone in their dealings with neighboring former Soviet republics, and military force has been used ruthlessly in Chechnya.¶ The following evidence should raise questions about the Clinton administration's policy of promoting peace by promoting democratization. The expectation that the spread of democracy will probably contribute to peace in the long run, once new democracies mature, provides little comfort to those who might face a heightened risk of war in the short run. Pushing nuclear-armed great powers like Russia or China toward democratization is like spinning a roulette wheel: many of the outcomes are undesirable. Of course, in most cases the initial steps on the road to democratization will not be produced by any conscious policy of the United States. The roulette wheel is already spinning for Russia and perhaps will be soon for China. Washington and the international community need to think not so much about encouraging or discouraging democratization as about helping to smooth the transition in ways that minimize its risks.

### ADV. 2

#### No extinction – it takes 12 degrees without adaptation

Farquhar et al. 17 [Sebastian Farquhar (PhD Candidate in Philosophy at Oxford and Project Manager at Future of Humanity Institute), John Halstead (climate activist and one of the co-founders of 350 Indiana-Calumet), Owen Cotton-Barratt (PhD in pure mathematics at Oxford. Previously worked as an academic mathematician and as Director of Research at the Centre for Effective Altruism), Stefan Schubert (Researcher at Department of Experimental Psychology at University of Oxford), Haydn Belfield (Associate Fellow at the Leverhulme Centre for the Future of Intelligence. He has a background in policy and politics, including as a Senior Parliamentary Researcher to a British Shadow Cabinet Minister, as a Policy Associate to the University of Oxford’s Global Priorities Project, and a degree in Philosophy, Politics and Economics from Oriel College, University of Oxford), Andrew Snyder-Beattie (Director of Research at the Future of Humanity Institute at Oxford, Holds degrees in biomathematics and economics and is currently pursuing a PhD in Zoology at Oxford), Existential Risk: Diplomacy and Governance, Global Priorities Project (Bostrom’s Institute), 2017-01-23, https://www.fhi.ox.ac.uk/wp-content/uploads/Existential-Risks-2017-01-23.pdf] TDI

The most likely levels of global warming are very unlikely to cause human extinction.15 The existential risks of climate change instead stem from tail risk climate change – the low probability of extreme levels of warming – and interaction with other sources of risk. It is impossible to say with confidence at what point global warming would become severe enough to pose an existential threat. Research has suggested that warming of 11-12°C would render most of the planet uninhabitable,16 and would completely devastate agriculture.17 This would pose an extreme threat to human civilisation as we know it.18 Warming of around 7°C or more could potentially produce conflict and instability on such a scale that the indirect effects could be an existential risk, although it is extremely uncertain how likely such scenarios are.19 Moreover, the timescales over which such changes might happen could mean that humanity is able to adapt enough to avoid extinction in even very extreme scenarios. The probability of these levels of warming depends on eventual greenhouse gas concentrations. According to some experts, unless strong action is taken soon by major emitters, it is likely that we will pursue a medium-high emissions pathway.20 If we do, the chance of extreme warming is highly uncertain but appears non-negligible. Current concentrations of greenhouse gases are higher than they have been for hundreds of thousands of years,21 which means that there are significant unknown unknowns about how the climate system will respond. Particularly concerning is the risk of positive feedback loops, such as the release of vast amounts of methane from melting of the arctic permafrost, which would cause rapid and disastrous warming.22 The economists Gernot Wagner and Martin Weitzman have used IPCC figures (which do not include modelling of feedback loops such as those from melting permafrost) to estimate that if we continue to pursue a medium-high emissions pathway, the probability of eventual warming of 6°C is around 10%,23 and of 10°C is around 3%.24 These estimates are of course highly uncertain. It is likely that the world will take action against climate change once it begins to impose large costs on human society, long before there is warming of 10°C. Unfortunately, there is significant inertia in the climate system: there is a 25 to 50 year lag between CO2 emissions and eventual warming,25 and it is expected that 40% of the peak concentration of CO2 will remain in the atmosphere 1,000 years after the peak is reached.26 Consequently, it is impossible to reduce temperatures quickly by reducing CO2 emissions. If the world does start to face costly warming, the international community will therefore face strong incentives to find other ways to reduce global temperatures.

#### No extinction – assumes 45 degrees celcius.

Alexey Turchin 19, Researcher at the Foundation Science for Life Extension in Moscow, Brian P. Green, director of technology ethics at the Markkula Center for Applied Ethics at Santa Clara University, 3/11/19, “Islands as refuges for surviving global catastrophes,” https://www.emerald.com/insight/content/doi/10.1108/FS-04-2018-0031/full/html

Different types of possible catastrophes suggest different scenarios for how survival could happen on an island. What is important is that the island should have properties which protect against the specific dangers of particular global catastrophic risks. Specifically different islands will provide protection against different risks, and their natural diversity will contribute to a higher total level of protection: - Quarantined island survives pandemic. An island could impose effective quarantine if it is sufficiently remote and simultaneously able to protect itself, possibly using military ships and air defense. - Far northern aboriginal people survive an ice age. Many far northern people have adapted to survive in extremely cold and dangerous environments, and under the right circumstances could potentially survive the return of an ice age. However, their cultures are endangered by globalization. If these people become dependent on the products of modern civilization, such as rifles and motor boats, and lose their native survival skills, then their likelihood of surviving the collapse of the outside world would decrease. Therefore, preservation of their survival skills may be important as a defense against the risks connected with extreme cooling. - Remote polar island with high mountains survives brief global warming of median surface temperatures, up to 50˚C. There is a theory that the climates of planets similar to the Earth could have several semi-stable temperature levels (Popp et al., 2016). If so, because of climate change, the Earth could transition to a second semi-stable state with a median global temperature of around 330 K, about 60˚C, or about 45˚C above current global mean temperatures. But even in this climate, some regions of Earth could still be survivable for humans, such as the Himalayan plateau at elevations above 4,000 m, but below 6,000 (where oxygen deficiency becomes a problem), or on polar islands with mountains (however, global warming affects polar regions more than equatorial regions, and northern island will experience more effects of climate change, including thawing permafrost and possible landslides because of wetter weather). In the tropics, the combination of increased humidity and temperature may increase the wet bulb temperature above 36˚C, especially on islands, where sea moisture is readily available. In such conditions, proper human perspiration becomes impossible (Sherwood and Huber, 2010), and there will likely be increased mortality and morbidity because of tropical diseases. If temperatures later returned to normal – either naturally or through climate engineering – the rest of the Earth could be repopulated.

## A2 Laundry List

#### Best science proves no warming impact.

Idso et al.18 (Craig, Geography@ArizonaState, David Legates, Climatology@Delaware, ProfClimatology@Deleware, Fred Singer, Physics@Princeton, ProfEnviroScience@Virginia, Climate Change Reconsidered II: Fossil Fuels, NIPCC, Ch.2, p. 108-109, Chapter Contributors: Joseph Bast, FormerPresident@HeartlandInstitute, Patrick Frank, PhD Chemistry@Stanford, Kenneth Haapala, MS Econ, President@Science+EnvironmentalPolicyProject, Jay Lehr, PhD Hyrdrology@Arizona, Patrick Moore, Co-Founder@Greenpeace, PhD Ecology@UniversityBrittishColumbia, Willie Soon, PhD AerospaceEngineering@USC, Chapter Reviewers: Charles Anderson, PhD Biology@Stanford, AssocProfBiolofy@PennState, Dennis Avery, DirectorFoodSecurity@Hudson, FormerUSDeptAg, Timothy Ball, PhD Climatology@QueenMary, FormerProfGeography@Winnipeg, David Bowen, PhD Geology@UCBoulder, ProfGeology@MontanaState, David Burton, MA CompSci@UTAustin, Mark Campbell, PhD Chemistry@JohnsHopkins, ProfChemistry@USNavalAcademy, David Deming, PhD PublicPolicy@Harvard, ProfPublicPolicy@Harvard, Rex Fleming, PhD AtmosphericScience@Michigan, Lee Gerhard, PhD Geology@Kansas, François Gervais, PhD Physics@UniversityNewOreleans, ProfPhysics@FrançoisRabelaisUniversity, Laurence Gould, ProfPhysics@UniversityHatford, PhD Physics@Temple, Kesten Green, PhD Managment@VictoriaManagmentSchool, Hermann Harde, PhD Engineering@UniversityOfKaiserslautern, Howard Hayden, PhD Physics@DenverUniversity, Ole Humlum, PhD GlacialGeomorphology@UniversityCopenhagen, ProfGeography@Oslo, Richard Keen, PhD Climatology@Colorado, ProfAtmosphericScience@Colorado, William Kininmonth, MSc@Colorado, FormerHead@AustralianBureauOfMeteorologyNationalClimateCenter, Anthony Lupo, PhD AtmosphericScience@Purdue, ProfAtmosphericScience@Missouri, Robert Murphy, PhD Chemistry@MIT, ProfPharmacology@Colorado, David Nebert, MD@UniversityOregon, ProfEnvironmentalHealth@Cincinati, Norman Page, PhD Geology@Illinois, Frederick Palmer, JD@Arizona, Gath Paltridge, PhD AtmosphericPhysics@UniversityMelbourne, ChiefResearchScientist@CSIRODivisionAtmosphericResearch, Jim Petch, PhD Geography@KingsCollegeLondon, Jan-Erik Solheim, MA PoliSci@Oslo, FormerExecDirectorUNEnvironmentProgram, Peter Stilbs, PhD Chemistry@RoyalInstituteTechnology, Roger Tattersol, BA History+PhilosophyOfScience@Leeds, Frank Tipler, PhD Physics@Maryland, ProfPhysics@Tulane, Ftitz Vahrenholt, PhD Chemistry@Munster, Art Viterito, PhD Climatology@Denver, ProfGeography@Maryland, Lance Wallace, PhD Physics@CUNY)

Methodology The Scientific Method is a series of requirements imposed on scientists to ensure the integrity of their work. The IPCC has not followed established rules that guide scientific research. Appealing to consensus may have a place in science, but not as a means of shutting down debate. Uncertainty in science is unavoidable but must be acknowledged. Many declaratory and predictive statements about the global climate are not warranted by science. Observations Surface air temperature is governed by energy flow from the Sun to Earth and from Earth back into space. Whatever diminishes or intensifies this energy flow can change air temperature. Levels of carbon dioxide and methane in the atmosphere are governed by processes of the carbon cycle. Exchange rates and other climatological processes are poorly understood. The geological record shows temperatures and CO2 levels in the atmosphere have not been stable, making untenable the IPCC’s assumption that they would be stable in the future in the absence of human emissions. Water vapor is the dominant greenhouse gas owing to its abundance in the atmosphere and the wide range of spectra in which it absorbs radiation. Carbon dioxide (CO2) absorbs energy only in a very narrow range of the longwave infrared spectrum. Controversies Reconstructions of average global surface temperature differ depending on the methodology used. The warming of the twentieth and early twenty-first centuries has not been shown to be beyond the bounds of natural variability. General circulation models (GCMs) are unable to accurately depict complex climate processes. They do not accurately hindcast or forecast the climate effects of human-related greenhouse gas emissions. Estimates of equilibrium climate sensitivity (the amount of warming that would occur following a doubling of atmospheric CO2 level) range widely. The IPCC’s estimate is higher than many recent estimates. Solar irradiance, magnetic fields, UV fluxes, and cosmic rays are poorly understood and may have greater influence on climate than general circulation models currently assume. Climate Impacts There is little evidence that the warming of the twentieth and early twenty-first centuries has caused a general increase in severe weather events. Meteorological science suggests a warmer world will see milder weather patterns. Arctic ice is losing mass, but melting commenced before there was a human impact on climate and is not unprecedented. Antarctica is either gaining ice mass or is unchanged. Best available data show sea-level rise is not accelerating. Local and regional sea levels continue to exhibit typical natural variability. The link between warming and drought is weak, and by some measures drought decreased over the twentieth century. Changes in the hydrosphere of this type are regionally highly variable and show a closer correlation with multidecadal climate rhythmicity than they do with global temperature. Plants have responded positively to rising temperatures and carbon dioxide levels in the atmosphere, a trend that is likely to continue beyond the twenty-first century. Why Scientists Disagree Climate is an interdisciplinary subject requiring insights from many fields of study. Very few scholars have mastery of more than one or two of these disciplines. Fundamental uncertainties arise from insufficient observational evidence and disagreements over how to interpret data and how to set the parameters of models. Many scientists trust the Intergovernmental Panel on Climate Change (IPCC) to objectively report the latest scientific findings on climate change, but it has failed to produce balanced reports and has allowed its findings to be misrepresented to the public. Climate scientists, like all humans, can have tunnel vision. Bias, even or especially if unconscious, can be especially pernicious when data are equivocal and allow multiple interpretations, as in climatology. Appeals to Consensus Surveys and abstract-counting exercises that are said to show a “scientific consensus” on the causes and consequences of climate change invariably ask the wrong questions or the wrong people. No survey data exist that support claims of consensus on important scientific questions. Some survey data, petitions, and peer-reviewed research show deep disagreement among scientists on issues that must be resolved before the man-made global warming hypothesis can be accepted. Some 31,000 scientists have signed a petition saying “there is no convincing scientific evidence that human release of carbon dioxide, methane, or other greenhouse gases is causing or will, in the foreseeable future, cause catastrophic heating of the Earth’s atmosphere and disruption of the Earth’s climate.” Prominent climate scientists have said repeatedly that there is no consensus on the most important issues in climate science.

#### No impact – adaptation solves.

Shani 15 (Amir Shani – PhD @ the University of Central Florida, researches ecotourism and ethics at the University of the Negev, Eilat Campus. Boaz Arad – spokesman in the Public Policy Center at the Jerusalem Institute for Market Studies, “There is always time for rational skepticism: Reply to Hall et al,” April 2015, ScienceDirect)

The uncertainty that encompasses current climate change assessments is strengthened in light of the studies indicating that over earth's history there have been **distinct warm periods** with temperatures **exceeding the current ones** (Esper et al., 2012, McIntyre and McKittrick, 2003 and Soon and Baliunas, 2003). Reviewing the relevant scientific literature, Khandekar, Murty, and Chittibabu (2005) concluded that “in the context of the earth's climate through the last 500 million years, the recent (1975–2000) increase in the earth's mean temperature does not appear to be **unusual** or **unprecedented** as claimed by IPCC and many supporters of the global warming hypothesis” (p. 1568). Other studies challenged the mainstream climate change narrative, according to which CO2 levels in the earth's atmosphere play a prominent role in rising temperatures. One notable example is the research by Shaviv and Veizer (2003), which demonstrates that the earth's temperature correlates well with variations in cosmic ray flux, rather than changes in atmospheric CO2. These findings and others stir contentious debates within the climate scientific community, but are nevertheless largely overlooked by the IPCC, which ignores alternative explanations for climate change. Regrettably, Hall et al. scornfully dismiss this evidence, presented in our research note, based on cherry-picking of a few “non-peer-reviewed” references that were cited, some vague claims about “misreading” and “selective citing,” as well as other semantic nitpicking. 4. Impacts of climate change The IPCC warns that climate change is likely to have severe consequences, particularly for poor countries, such as increased hunger, water shortages, vulnerability to extreme weather events and debilitating diseases. **However**, these estimations have been **heavily criticized** for failing to properly account for **substantial improvements in adaptive capacity** (i.e., the capability of coping with the impact of global warming) that are likely to occur due to advances in **economic development**, **technological change** and **human capital** over the next century (Goklany, 2007). Fostering economic growth and technological development, largely achievable through the use of fossil fuels, will strengthen both industrialized and developing countries' **adaptive capacity** to deal not just with possible future climate change consequences, but also with other environmental and public health problems. Such policy will **provide greater benefits** at lower costs than drastic climate change mitigation efforts involving substantially cutting greenhouse gas emissions (Goklany, 2004 and Goklany, 2012). Furthermore, the analyses of Galiana and Green (2009) exemplify that in the current state of energy technologies, the suggested plans for ambitious emission reductions will likely severely clobber the global economy, especially in view of present economic conditions. In order to stabilize atmospheric CO2 at accepted levels, there is a need for enormous advances in efficient energy technology, which is currently missing (Pielke, Wigley & Green, 2008). In any case, **even if** every industrialized nation meets the most ambitious emissions targets set by the Kyoto Protocol, such efforts are likely to have **little effect**, particularly in the light of the considerable increases in greenhouse gas emissions by rising economic superpowers as **China** and **India**, as well as the **remaining developing world** (Wigley, 1998). Hall et al. criticized us for choosing “selective citations…that discuss natural processes potentially affect climate in specific locations and times.” Yet the purpose of referring to such studies was to refute the claims made by the IPCC and other climate change alarmists to the effect that recent extreme weather events (e.g., floods, droughts and storms) are the consequences of anthropogenic emissions of greenhouse gases. Moreover, data shows that despite claims that the number and intensity of extreme weather has increased, between 1900 and 2010 the average annual death and death rates from extreme weather events has declined by 93% and 98%, respectively (Goklany, 2009). This is mostly due to economic and technological factors, such as improved global food production, increase globalized food trade and better disaster preparedness. IPCC's exaggerated estimations of climate change impacts were also noted in an op-ed in Financial Times written by climate economist Richard Tol (2014), a week following his demand that his name as one of the leading authors be removed from the IPCC's AR5 due to its over alarmist assessments of the impacts of AGW and underestimation of humanity's adaptive capacity. As concluded by Tol, “Humans are a **tough** and **adaptable** species. People live on the equator and in the Arctic, in the desert and in the rainforest. **We survived ice ages** with **primitive technologies**. The idea that climate change poses an existential threat to humankind is **laughable**” (2014, para 1).