# 1NC vs Plano East AD

## 1

#### The standard is maximizing expected wellbeing.

#### 1] Humans are hard-coded to follow pleasure and pain, comes before other ethics

Berridge et al 13 [Kent C Berridge, Morten L Kringelbach “*Neuroscience of affect: brain mechanisms of pleasure and displeasure*” Published: Current Opinion in Neurobiology, Vol. 23, Issue 3, June 2013] [<https://doi.org/10.1016/j.conb.2013.01.017>; Pg. 298-300] [PDF available upon request] [Berridge: James Olds Distinguished University Professor of Psychology and Neuroscience at University of Michigan. Ph.D. University of Pennsylvania] [Kringelbach: Professor of Neuroscience, Aarhus University. Senior Research Fellow, The Queen's College.] || SM

Subcortical brain machinery for actually generating or causing a ‘liking’ reaction to core pleasure can be probed more extensively via brain manipulations in animals. Studies in our laboratory have identified neural pleasure generators by focusing on the sensory pleasure of sweetness. Sweet ‘liking’ is useful because affective facial expressions of taste pleasure ‘liking’ exist in newborn humans and in some animals, aiding the objective measure of hedonic impact. For example, parents often know when their baby expresses a ‘liking’ judgment of the deliciousness of a meal. Sweet foods elicit a contented licking of the lips, but bitter tastes instead elicit disgust gapes and headshakes. Homologous ‘liking’ orofacial expressions are elicited also in apes and monkeys, and even in rats and mice [47]. We have used brain manipulations of ‘liking’ reactions to identify brain mechanisms that generate and enhance such pleasures as sweetness (Figure 3).

One surprising finding has been that neural generators of intense pleasure are much more restricted neurochemically than was previously envisioned. For instance, mesolimbic dopamine, probably the most popular brain neurotransmitter candidate for pleasure two decades ago, turns out not to cause pleasure or ‘liking’ at all. Rather dopamine more selectively mediates a motivational process of incentive salience, which is a mechanism for ‘wanting’ rewards but not for ‘liking’ them. When amplified by addictive drugs or by endogenous factors, dopamine helps generate intense levels of ‘wanting’, characteristic of drug addiction, eating disorders, and related compulsive pursuits. Why, then, are dopamine-promoting drugs such as cocaine or methamphetamine reportedly so pleasant? One possibility is that some psychostimulant euphoria comes from the ‘wanting’ component of reward: a world that seems more attractive may well carry an aura of euphoria. Another potential mechanism is that, distinct from raising dopamine in the synapse, such drugs might also induce secondary recruitment of additional neurobiological mechanisms that more directly cause hedonic pleasure. For instance, there is evidence to suggest that elevation of endogenous opioid signals may be recruited in limbic structure [62,63]. Such opioid recruitment in accumbens-pallidal hotspots described below would plausibly generate pleasure ‘liking’ [64]. Conceivably, the secondary recruitment of hedonic mechanisms might become somewhat sluggish with continual drug-taking, therefore requiring higher doses for the sought-after pleasurable high, even if dopamine-related sensitization enhanced circuit reactivity to produce more and more intense ‘wanting’ [60].

Hedonic hotspot network

Another surprising finding has been that pleasures generators are much more anatomically restricted than previously envisioned, localized to particular subregions. We have identified several pleasure generators as small hedonic hotspots, nestled in subcortical structures. Opioid and endocannabinoid neurochemical signals do more effectively generate intense pleasures than dopamine — but only within the boundaries of such hotspots. For example, mu opioid stimulation by DAMGO microinjection within a hotspot of NAc (localized in the rostrodorsal quadrant of medial shell), or in another hotspot of ventral pallidum (in the posterior half of ventral pallidum), more than doubles the intensity of ‘liking’ reactions elicited by sweetness. But the same DAMGO microinjections elsewhere in the remaining 90% of NAc outside the hotspot generate only ‘wanting’ without enhancing ‘liking’ — much like dopamine (i.e. remaining 60% of medial shell and probably entire lateral shell and core; and even regions of dorsal striatum) (Figures 1 and 3). In addition, in the anterior half of ventral pallidum, DAMGO microinjection actually causes opposite suppression of ‘liking’ reactions. So far, no hedonic hotspots have yet been found in neocortex (though the search continues), but rather only in these subcortical structures. Continued failure to find a hedonic-enhancing hotspot in prefrontal cortex would be another reason to distinguish between cortical representation and subcortical causation of pleasure as different functions.

Each accumbens-pallidum hotspot is only a cubic-millimeter in volume in rats (a human hotspot equivalent hould be approximately a cubic-centimeter, if scaled to whole-brain size). Functionally, hedonic hotspots seem quite specialized for intense pleasure generation compared to regions around them. Neurobiologically, hotspots may have unique anatomical or neurobiological features that distinguish them from the rest of their containing structure, and which perhaps permit the functional specialization for pleasure causation (Figure 1).

Integrating neurochemical and anatomical findings, what makes opioid neurotransmitters more hedonic than dopamine is not that limbic opioid signals always generate ‘liking’. In most of NAc, neither does. Rather opioid stimulation has the special capacity to enhance ‘liking’ only if the stimulation occurs within an anatomical hotspot— whereas dopamine never does anywhere. Beyond NAc and ventral pallidum, opioid stimulation in all regions tested so far for other structures, such as neostriatum, amygdala, and so on, at best generate enhancement only of motivation ‘wanting’ without enhancing hedonic ‘liking’. Overall, the pattern indicates not only strong localization of hedonic function, but also neurochemical specificity of pleasure neurotransmitters.

Functionally, hotspots in NAc and ventral pallidum interact together in a single integrated circuit. The two sites act as a functional unit for mediating pleasure enhancements. Each hotspot seems able to recruit the other to unanimously generate amplification of ‘liking’. For example, a single opioid microinjection into the NAc hotspot enhances also responsiveness of ventral pallidum hotspot neurons, reflected in neuronal firing patterns elicited by a sweet taste or in gene activation, at the same time as enhancing behavioral ‘liking’ reactions. Unanimous recruitment of both hotspots further appears to be required to magnify pleasure. Blocking either hotspot with an opioid-antagonist microinjection completely prevents opioid stimulation of the other hotspot from producing any ‘liking’ enhancement [72].Finally, the ventral pallidum hotspot may be especially important for maintaining normal levels of pleasure. Damage to ventral pallidum can cause even sweet sucrose taste to elicit purely negative gapes and other disgust reactions for days or weeks afterwards (C-Y Ho, ‘The ventral pallidum as a limbic pleasure generator, PhD Dissertation, Ann Arbor, University of Michigan, 2010) [8,73]. No other brain lesion of a single site so potently transforms sensory pleasure into purely negative affect. Of course, other brain structures do help generate intense aversive emotions when manipulated in other ways

#### 2] Life has a priori value achieved through pleasure.

Amien Kacou 8 WHY EVEN MIND? On The A Priori Value Of “Life”, Cosmos and History: The Journal of Natural and Social Philosophy, Vol 4, No 1-2 (2008) cosmosandhistory.org/index.php/journal/article/view/92/184

Furthermore, that manner of finding things good that is in pleasure can certainly not exist in any world without consciousness (i.e., without “life,” as we now understand the word)—slight analogies put aside. In fact, we can begin to develop a more sophisticated definition of the concept of “pleasure,” in the broadest possible sense of the word, as follows: it is the common psychological element in all psychological experience of goodness (be it in joy, admiration, or whatever else). In this sense, pleasure can always be pictured to “mediate” all awareness or perception or judgment of goodness: **there is pleasure in all consciousness** of things good; pleasure is the common element of all conscious satisfaction. In short, **it is simply the very experience of liking things**, or the liking of experience, in general. In this sense, pleasure is, not only uniquely characteristic of life but also, the core expression of goodness in life—the most general sign or phenomenon for favorable conscious valuation, in other words. This does not mean that “good” is absolutely synonymous with “pleasant”—what we value may well go beyond pleasure. (The fact that we value things needs not be reduced to the experience of liking things.) However, what we value beyond pleasure remains a matter of speculation or theory. Moreover, we note that a variety of things that may seem otherwise unrelated are correlated with pleasure—some more strongly than others. In other words, **there are many things the experience of which we like**. For example: the admiration of others; sex; or rock-paper-scissors. But, again, **what they are is irrelevant** in an inquiry on **a priori value**—what gives us pleasure is a matter for empirical investigation. Thus, we can see now that, in general, something primitively valuable is attainable in living—that is, pleasure itself. And it seems equally clear that we have a priori logical reason to pay attention to the world in any world where pleasure exists. Moreover, we can now also articulate a foundation for a security interest in our life: since the good of pleasure can be found in living (to the extent pleasure remains attainable),[17] and **only in living**, therefore, **a priori**, life ought to be **continuously (and indefinitely) pursued** at least for the sake of preserving the possibility of finding that good. However, this platitude about the value that can be found in life turns out to be, at this point, insufficient for our purposes. It seems to amount to very little more than recognizing that our subjective desire for life in and of itself shows that **life has some objective value**. For what difference is there between saying, “living is unique in benefiting something I value (namely, my pleasure); therefore, I should desire to go on living,” and saying, “I have a unique desire to go on living; therefore I should have a desire to go on living,” whereas the latter proposition immediately seems senseless? In other words, “life gives me pleasure,” says little more than, “I like life.” Thus, we seem to have arrived at the conclusion that the fact that we already have some (**subjective) desire for life** shows life to have some (**objective) value**. But, if that is the most we can say, then it seems our enterprise of justification was quite superficial, and the subjective/objective distinction was useless—for all we have really done is highlight the correspondence between value and desire. Perhaps, our inquiry should be a bit more complex.

#### 3] Aggregation is inevitable for governments since they have to make tradeoffs – actor specificity o/w since different agents have different obligations.

#### 4] Extinction first:

#### A] Forecloses future improvement – we can never improve society because our impact is irreversible

#### B] Turns suffering – mass death causes suffering because people can’t get access to resources and basic necessities

#### C] Moral obligation – allowing people to die is unethical and should be prevented because it creates ethics towards other people

#### D] Objectivity – body count is the most objective way to calculate impacts because comparing suffering is unethical

#### E] Moral uncertainty – if we’re unsure about which interpretation of the world is true – we ought to preserve the world to keep debating about it

## 2

#### Space Commercialization is key to Space Deterrence – Commercial Flexibility is key to deterrence by denial.

Klein 19, John J. Understanding space strategy: the art of war in space. Routledge, 2019. (a Senior Fellow and Strategist at Falcon Research, Inc. and Adjunct Professor at George Washington University’s Space Policy Institute)//Elmer

Recent U.S. space policy initiatives underscore the far-reaching benefits of commercial space activities. The White House revived the National Space Council to foster closer coordination, cooperation, and exchange of technology and information among the civil, national security, and commercial space sectors.1 National Space Policy Directive 2 seeks to promote economic growth by streamlining U.S. regulations on the commercial use of space.2 While the defense community generally appreciates the value of services and capabilities derived from the commercial space sector—including space launch, Earth observation, and satellite communications—it often overlooks one area of strategic importance: deterrence. To address the current shortcoming in understanding, this paper first describes the concept of deterrence, along with how space mission assurance and resilience fit into the framework. After explaining how commercial space capabilities may influence the decision calculus of potential adversaries, this study presents actionable recommendations for the U.S. Department of Defense (DoD) to address current problem areas. Ultimately, DoD—including the soon-to-be reestablished U.S. Space Command and possibly a new U.S. Space Force—should incorporate the benefits and capabilities of the commercial space sector into flexible deterrent options and applicable campaign and contingency plans. Deterrence, Mission Assurance, and Resilience Thomas Schelling, the dean of modern deterrence theory, held that deterrence refers to persuading a potential enemy that it is in its interest to avoid certain courses of activity.3 One component of deterrence theory lies in an understanding that the threat of credible and potentially overwhelming force or other retaliatory action against any would-be adversary is sufficient to deter most potential aggressors from conducting hostile actions. This idea is also referred to as deterrence by punishment.4 The second salient component of deterrence theory is denial. According to Glenn Snyder’s definition, deterrence by denial is “the capability to deny the other party any gains from the move which is to be deterred.”5 The 2018 U.S. National Defense Strategy (NDS) highlights deterrence, and specifically deterrence by denial, as a vital component of national security. The NDS notes that the primary objectives of the United States include deterring adversaries from pursuing aggression and preventing hostile actions against vital U.S. interests.6 The strategy also observes that deterring conflict necessitates preparing for war during peacetime.7 For the space domain, the peacetime preparedness needed for deterrence by denial occurs in the context of space mission assurance and resilience. Mission assurance entails “a process to protect or ensure the continued function and resilience of capabilities and assets—including personnel, equipment, facilities, networks, information and information systems, infrastructure, and supply chains—critical to the performance of DoD mission essential functions in any operating environment or condition.”8 Similar to mission assurance but with a different focus, resilience is an architecture’s ability to support mission success with higher probability; shorter periods of reduced capability; and across a wider range of scenarios, conditions, and threats, despite hostile action or adverse conditions.9 Resilience may leverage cross-domain solutions, along with commercial and international capabilities.10 Space mission assurance and resilience can prevent a potential adversary from achieving its objectives or realizing any benefit from its aggressive action. These facets of U.S. preparedness help convey the futility of conducting a hostile act. Consequently, they enhance deterrence by denial. Commercial Space Enables Deterrence The commercial space sector directly promotes mission assurance and resilience efforts. This is in part due to the distributed and diversified nature of commercial space launch and satellites services. Distribution refers to the use of a number of nodes, working together, to perform the same mission or functions as a single node; diversification describes contributing to the same mission in multiple ways, using different platforms, orbits, or systems and capabilities.11 The 2017 U.S. National Security Strategy, in noting the benefits derived from the commercial space industry, states that DoD partners with the commercial sector’s capabilities to improve the U.S. space architecture’s resilience.12 Although U.S. policy and joint doctrine frequently acknowledge the role of the commercial space sector in space mission assurance and resilience, there is little recognition that day-to-day contributions from the commercial industry assists in deterring would-be adversaries. The commercial space sector contributes to deterrence by denial through multi-domain solutions that are distributed and diversified. These can deter potential adversaries from pursuing offensive actions against space-related systems. Commercial launch providers enhance deterrence by providing options for getting payloads into orbit. These include diverse space launch capabilities such as small and responsive launch vehicles, along with larger, reusable launch vehicles; launch rideshares for secondary payloads; and government payloads on commercial satellites. Various on-orbit systems also promote deterrence. For example, if an aggressor damages a commercial remote sensing satellite during hostilities, similar commercial satellites in a different orbital regime, or those of the same constellation, may provide the needed imagery. If satellite communications are jammed or degraded, commercial service providers can reroute satellite communications through their own networks, or potentially through the networks of another company using a different portion of the frequency spectrum. Regarding deterrence by punishment efforts, the commercial space sector can play a role, albeit an indirect one, through improved space situational awareness (SSA) and space forensics (including digital forensics and multispectral imagery). The commercial industry may support the attribution process following a hostile or illegal act in space through its increasingly proliferating network of SSA ground telescopes and other terrestrial tracking systems. The DoD may also leverage the commercial space sector’s cyber expertise to support digital forensic efforts to help determine the source of an attack. By supporting a credible and transparent attribution process, commercial partners may cause a would-be adversary to act differently if it perceives that its aggressive, illegal, or otherwise nefarious actions will be disclosed. Doing so can help bolster the perceived ability to conduct a legitimate response following a hostile attack, which may improve deterrence by punishment efforts. Commercial space capabilities may also facilitate the application of force to punish a potential aggressor. In addition to traditional military space systems, commercial satellite imagery and communication capabilities may be used in cueing and targeting for punitive strikes against an aggressor. Although the commercial space sector is not expected to be involved directly in the use of retaliatory force following a hostile act, commercial partners may help in providing the information used to identify those responsible and to facilitate any consequent targeting efforts.

#### Space Deterrence Breakdowns and destroys American supremacy over space.

Parker 17 Clifton Parker 1-24-2017 “Deterrence in space key to U.S. security” <https://cisac.fsi.stanford.edu/news/deterrence-space-key-us-security> (Policy Analyst at the Stanford Center for International Security and Cooperation)//Elmer

#### Space is more important than ever for the security of the United States, but it’s almost like the Wild West in terms of behavior, a top general said today. Air Force Gen. [John Hyten](http://www.af.mil/AboutUs/Biographies/Display/tabid/225/Article/108115/general-john-e-hyten.aspx), commander of the U.S. Strategic Command, spoke Jan. 24 at Stanford’s [Center](http://cisac.fsi.stanford.edu/) for International Security and Cooperation. His [talk](http://cisac.fsi.stanford.edu/events/us-strategic-command-perspectives-deterrence-and-assurance) was titled, “U.S. Strategic Command Perspectives on Deterrence and Assurance.” Hyten said, “Space is fundamental to every single military operation that occurs on the planet today.” He added that “there is no such thing as a war in space,” because it would affect all realms of human existence, due to the satellite systems. Hyten advocates “strategic deterrence” and “norms of behavior” across space as well as land, water and cyberspace. Otherwise, rivals like China and Russia will only threaten U.S. interests in space and wreak havoc for humanity below, he said. Most of contemporary life depends on systems connected to space. Hyten also addressed other topics, including recent proposals by some to upgrade the country’s missile defense systems. “You just don’t snap your fingers and build a state-of-the-art anything overnight,” Hyten said, adding that he has not yet spoken to Trump administration officials about the issue. “We need a powerful military,” but a severe budget crunch makes “reasonable solutions” more likely than expensive and unrealistic ones. On the upgrade front, Hyten said he favors a long-range strike missile system to replace existing cruise missiles; a better air-to-air missile for the Air Force; and an improved missile defense ground base interceptor. ‘Critically dependent’ From satellites to global-positioning systems GPS, space has transformed human life – and the military – in the 21st century, Hyten said. In terms of defining "space," the U.S. designates people who travel above an altitude of 50 miles as astronauts. As the commander of the U.S. Strategic Command, Hyten oversees the control of U.S. strategic forces, providing options for the president and secretary of defense. In particular, this command is charged with space operations (such as military satellites), information operations (such as information warfare), missile defense, global command and control, intelligence, surveillance, and reconnaissance, global strike and strategic deterrence (the U.S. nuclear arsenal), and combating weapons of mass destruction. Hyten explained that every drone, fighter jet, bomber, ship and soldier is critically dependent on space to conduct their own operations. All cell phones use space, and the GPS command systems overall are managed at Strategic Command, he said. “No soldier has to worry about what’s over the next hill,” he said, describing GPS capabilities, which have fundamentally transformed humanity’s way of life. Space needs to be available for exploration, he said. “I watch what goes on in space, and I worry about us destroying that environment for future generations.” He said that too many drifting objects and debris exist – about 22,000 right now. A: recent Chinese satellite interception created a couple thousand more debris objects that now circle about the Earth at various altitudes and pose the risk of striking satellites. “We track every object in space” now, Hyten said, urging “international norms of behavior in space.” He added, “We have to deter bad behavior on space. We have to deter war in space. It’s bad for everybody. We could trash that forever.” But now rivals like China and Russia are building weapons to deploy in the lower levels of space. “How do we prevent this? It’s bigger than a space problem,” he said. Deterring conflict in the cyber, nuclear and space realms is the strategic deterrence goal of the 21st century, Hyten said. “The best way to prevent war is to be prepared for war,” he said. Hyten believes the U.S. needs a fundamentally different debate about deterrence. And it all starts with nuclear weapons. “In my deepest heart, I wish I didn’t have to worry about nuclear weapons,” he said. Hyten described his job as “pretty sobering, it’s not easy.” But he also noted the mass violence of the world prior to 1945 when the first atomic bomb was used. Roughly 80 million people died from 1939 to 1945 during World War II. Consider that in the 10-plus years of the Vietnam War, 58,000 Americans were killed. That’s equivalent to two days of deaths in WWII, he said. In a world without nuclear weapons, a rise in conventional warfare would produce great numbers of mass casualties, Hyten said. About war, he said, “Once you see it up close, no human will ever want to experience it.” Though America has “crazy enemies” right now, in many ways the world is more safe than during WWII, Hyten said. The irony is that nuclear weapons deterrence has kept us from the type of mass killings known in events like WWII. But the U.S. must know how to use its nuclear deterrence effectively. Looking ahead, Hyten said the U.S. needs to think about space as a potential war environment. An attack in space might not mean a response in space, but on the Earth. Hyten describes space as the domain that people look up at it and still dream about. “I love to look at the stars,” but said he wants to make sure he’s not looking up at junk orbiting in the atmosphere.

#### US space dominance prevents global war

**Zubrin 15** [(Robert Zubrin, president of Pioneer Energy, a senior fellow with the Center for Security Policy) “US Space Supremacy is Now Critical,” Space News, 1/22/15, <https://spacenews.com/op-ed-u-s-space-supremacy-now-critical/>] TDI

The United States needs a new national security policy. For the first time in more than 60 years, we face the real possibility of a large-scale conventional war, and we are woefully unprepared. Eastern and Central Europe is now so weakly defended as to virtually invite invasion. The United States is not about to go to nuclear war to defend any foreign country. So deterrence is dead, and, with the German army cut from 12 divisions to three, the British gone from the continent, and American forces down to a 30,000-troop tankless remnant, the only serious and committed ground force that stands between Russia and the Rhine is the Polish army. It’s not enough. Meanwhile, in Asia, the powerful growth of the Chinese economy promises that nation eventual overwhelming numerical force superiority in the region. How can we restore the balance, creating a sufficiently powerful conventional force to deter aggression? It won’t be by matching potential adversaries tank for tank, division for division, replacement for replacement. Rather, the United States must seek to totally outgun them by obtaining a radical technological advantage. This can be done by achieving space supremacy. To grasp the importance of space power, some historical perspective is required. Wars are fought for control of territory. Yet for thousands of years, victory on land has frequently been determined by dominance at sea. In the 20th century, victory on both land and sea almost invariably went to the power that controlled the air. In the 21st century, victory on land, sea or in the air will go to the power that controls space. The critical military importance of space has been obscured by the fact that in the period since the United States has had space assets, all of our wars have been fought against minor powers that we could have defeated without them. Desert Storm has been called the first space war, because the allied forces made extensive use of GPS navigation satellites. However, if they had no such technology at their disposal, the end result would have been just the same. This has given some the impression that space forces are just a frill to real military power — a useful and convenient frill perhaps, but a frill nevertheless. But consider how history might have changed had the Axis of World War II possessed reconnaissance satellites — merely one of many of today’s space-based assets — without the Allies having a matching capability. In that case, the Battle of the Atlantic would have gone to the U-boats, as they would have had infallible intelligence on the location of every convoy. Cut off from oil and other supplies, Britain would have fallen. On the Eastern front, every Soviet tank concentration would have been spotted in advance and wiped out by German air power, as would any surviving British ships or tanks in the Mediterranean and North Africa. In the Pacific, the battle of Midway would have gone very much the other way, as the Japanese would not have wasted their first deadly airstrike on the unsinkable island, but sunk the American carriers instead. With these gone, the remaining cruisers and destroyers in Adm. Frank Jack Fletcher’s fleet would have lacked air cover, and every one of them would have been hunted down and sunk by unopposed and omniscient Japanese air power. With the same certain fate awaiting any American ships that dared venture forth from the West Coast, Hawaii, Australia and New Zealand would then have fallen, and eventually China and India as well. With a monopoly of just one element of space power, the Axis would have won the war. But modern space power involves far more than just reconnaissance satellites. The use of space-based GPS can endow munitions with 100 times greater accuracy, while space-based communications provide an unmatched capability of command and control of forces. Knock out the enemy’s reconnaissance satellites and he is effectively blind. Knock out his comsats and he is deaf. Knock out his navsats and he loses his aim. In any serious future conventional conflict, even between opponents as mismatched as Japan was against the United States — or Poland (with 1,000 tanks) is currently against Russia (with 12,000) — it is space power that will prove decisive. Not only Europe, but the defense of the entire free world hangs upon this matter. For the past 70 years, U.S. Navy carrier task forces have controlled the world’s oceans, first making and then keeping the Pax Americana, which has done so much to secure and advance the human condition over the postwar period. But should there ever be another major conflict, an adversary possessing the ability to locate and target those carriers from space would be able to wipe them out with the push of a button. For this reason, it is imperative that the United States possess space capabilities that are so robust as to not only assure our own ability to operate in and through space, but also be able to comprehensively deny it to others. Space superiority means having better space assets than an opponent. Space supremacy means being able to assert a complete monopoly of such capabilities. The latter is what we must have. If the United States can gain space supremacy, then the capability of any American ally can be multiplied by orders of magnitude, and with the support of the similarly multiplied striking power of our own land- and sea-based air and missile forces be made so formidable as to render any conventional attack unthinkable. On the other hand, should we fail to do so, we will remain so vulnerable as to increasingly invite aggression by ever-more-emboldened revanchist powers. This battle for space supremacy is one we can win. Neither Russia nor China, nor any other potential adversary, can match us in this area if we put our minds to it. We can and must develop ever-more-advanced satellite systems, anti-satellite systems and truly robust space launch and logistics capabilities. Then the next time an aggressor commits an act of war against the United States or a country we are pledged to defend, instead of impotently threatening to limit his tourist visas, we can respond by taking out his satellites, effectively informing him in advance the certainty of defeat should he persist. If we desire peace on Earth, we need to prepare for war in space.

## Case

#### Just stopping private companies won’t do anything, public companies are also going to do space exploration.

#### Slowing down will lead to less innovations, which means we wouldn’t have had a vaccine for covid and we would have all died

#### Rockets won’t have a big impact even in the future and they won’t stand out compared to other industries. Companies are already developing zero-emission rockets. NASA is even worse, it causes a lot more ozone loss compared to private rockets, Inverse 21

(Inverse.com, 11-23-2021, accessed on 1-14-2022, Inverse, "Are space rockets bad for the Earth? Why the question ignores an important truth", https://www.inverse.com/innovation/are-rockets-environmentally-friendly) [Lynbrook MD]

Innovation SpaceX, Blue Origin, Virgin Galactic, and others are launching more rockets than ever. Is it good for the planet? When Blue Origin and Virgin Galactic launched their respective first crewed missions in July, it sparked environmental concerns. “How the billionaire space race could be one giant leap for pollution,” The Guardian wrote. “The cost [...] will be paid in carbon emissions,” read a Popular Science headline. “Who is thinking about the atmosphere?” asked The Hill. One billionaire that claims to be thinking about the atmosphere is Elon Musk. The CEO claims he is “working on sustainable energy for Earth with Tesla & protecting future of consciousness by making life multiplanetary with SpaceX.” But does SpaceX’s work to explore the stars undermine Tesla’s work to clean up Earth’s atmosphere? The short answer is that we don’t really know. Martin Ross, senior project engineer of commercial launch projects at advisory nonprofit The Aerospace Corporation, tells Inverse that more research is needed in this area. “The current level of data about rocket emissions does not provide researchers with enough information to fully assess the impact of launches on the global environment,” he says. Current rocket launches have a negligible effect on total carbon emissions — Everyday Astronaut found they accounted for 0.0000059 percent of global carbon emissions in 2018, while the airline industry produced 2.4 percent the same year. But the long-term effect is less clear, especially as companies like SpaceX move from hosting 26 launches in a year to 1,000 launches per rocket in a year. “I think we can guess that rockets won't be a huge impact on the environment, and they probably won't stand out as a sole source of new problems,” Darin Toohey, professor at the University of Colorado Boulder’s Atmospheric and Ocean Sciences, tells Inverse. “But they will add to the growing list of activities that have negative impacts on the environment.” Here is what we know so far. This depends a lot on the rocket, and which fuel it burns to create thrust. Eloise Marais, an associate professor of physical geography at University College London, told The Guardian in July that she has simulated the effects of rocket launches for a decade. She found that one rocket launch can produce from 200 to 300 tons of carbon dioxide. This largely corresponds with Everyday Astronaut’s calculations. The United Launch Alliance’s Delta IV Heavy, which just burns hydrogen, comes out on top with basically no carbon. The SpaceX Falcon 9 and NASA Space Shuttle both produce around 400 tons of carbon dioxide per launch. USA Today reported that Blue Origin’s New Shepard emitted basically no carbon dioxide. That’s because it uses liquid hydrogen and oxygen as its fuel. The upcoming SpaceX Starship and Super Heavy produce a staggering 2,683 tons per launch. When adjusted for payload, it produces about the same as the Falcon 9: 27 tons of carbon dioxide per ton to low-Earth orbit. Marais noted that these figures are small compared to global air travel. But air travel produces one to three tons of carbon dioxide per passenger. As rocket launch emissions increase nearly six percent per year, she warned that it may not take long to outpace air travel. Beyond the carbon emissions outlined above, it’s important to remember that rockets can also emit other gases and pollutants. In a 2020 analysis, Everyday Astronaut explained that each rocket will produce varying amounts of pollution. Take the SpaceX Falcon 9: It burns rocket propellant and liquid oxygen, so it emits carbon dioxide, water vapor, nitrogen oxides, carbon soot, carbon monoxide, and sulfur compounds. Other rockets produce pollutants like inorganic chlorine and alumina. Some, like the hydrogen-burning Delta IV Heavy, only produce water vapor and nitrogen oxides. Water vapor has an effect on the atmosphere. In a 2012 paper published in the Journal of Geophysical Research, the authors observed how the final NASA Space Shuttle launch in 2011 emitted around 350 tons of vapor during its ascent. That created polar mesospheric clouds brighter than 99 percent of other such clouds in the area. In terms of launch emissions per ton sent to space, reusable rockets are actually worse. That’s because the ship can’t send as much weight into space at once, because it needs to save some fuel to return. Everyday Astronaut notes that the SpaceX Falcon 9 can send 15.5 tons to low-Earth orbit when it’s being reused, but it can launch 22.8 tons if it doesn’t need to return to Earth. That means a reusable Falcon 9 emits 27 tons of carbon dioxide per ton sent to space, while the expendable model emits 19 tons. Of course, that doesn’t factor in the emissions from producing the rocket itself. Reusable rockets will avoid emissions from the manufacturing process. It’s hard to say, as each fuel comes with its downsides. In October, a University of Exeter study found that Orbex’s new Prime rocket would have a carbon footprint 96 percent smaller than comparable launch programs. The engine uses biopropane and liquid oxygen. The study looked at the direct emissions from launch, indirect emissions from production, and radiative forcing effects of non-carbon dioxide emissions in the atmosphere. It found that one Orbex Prime rocket launch would produce the equivalent of 13.8 tons of carbon dioxide. The rocket is designed to send payloads of up to 150 kg (330 pounds) to low-Earth orbit. It should be noted that it hasn’t flown yet. As of June 2021, the company was targeting a launch date of the end of 2022. They do tend to, but as with many other areas, it requires greater scrutiny. Ozone is a gas in the Earth’s stratosphere. The oxygen molecules in the breathable air consist of two oxygen atoms, but ozone molecules consist of three oxygen atoms. The BBC notes that this layer absorbs around 98 percent of the Sun’s harmful ultraviolet rays. Scientists in the 1970s warned that commonly-used chlorofluorocarbons, or CFCs, were creating a hole in the ozone layer. The Montreal Protocol in 1990 banned such ozone-depleting chemicals, but the CBC notes that the protocol didn’t cover aerospace. In 2009, research published in the journal Astropolitics claimed that current rocket launches deplete a few hundredths of a percent of the ozone layer per year. Toohey, who contributed to the study, claimed at the time that “if left unregulated, rocket launches by the year 2050 could result in more ozone destruction than was ever realized by CFCs." Toohey tells Inverse that this statement was made in reference to solid rocket motors that contain ammonium perchlorate. “There are no limits on their use, as far as I know,” he says. In January 2020, a new article in the Journal of Cleaner Production warned that rocket launches moving through the ozone layer is a key concern. It explained that rockets do cause ozone loss, but solid rocket motors like those on the NASA space shuttle cause far greater loss. Newer rockets that use liquid propellant, like SpaceX’s Falcon 9, cause less ozone loss. These rockets have increased in popularity since the 2009 study. The problem is that most studies have focused on solid rocket motors, so more research is needed to understand how they differ. In terms of carbon dioxide, Musk has indicated that he’s thinking about the issue. In September 2019, he wrote that carbon capture would enable net zero carbon flights long-term. In January, Musk announced a $100 million prize for carbon removal. The four-year XPrize competition, which will conclude by Earth Day 2025, invites teams to demonstrate a cost-effective solution for removing gigatonnes of carbon per year. Of course, carbon dioxide only covers part of the equation, and doesn’t factor in other pollutants. Even if Musk captures all of the Starship’s carbon dioxide, it will still emit water vapor and nitrogen oxides. It’s an issue with other zero-carbon rockets like Blue Origin’s New Shepard. The problem is that there’s not enough data or research to understand what rockets are doing to the environment. “As atmospheric scientists, we would like to be able to assess what those impacts are likely to be so that efforts can be taken to reduce those impacts as launches become more frequent,” Toohey says. “But we lack the observations of emissions from rockets that are necessary to do that.” It may be a small issue for now, but as rocket launches increase in frequency, that could change soon.

#### No link – Virilio’s analysis only pertains to warfare

Kellner ’99 (Douglas, George F. Kneller Chair in the Philosophy of Education, UCLA – “Virilio, War, and Technology: Some Critical Reflections," Theory, Culture and Society, Vol. 16(5-6), 1999: 103-125, http://pages.gseis.ucla.edu/faculty/kellner/Illumina%20Folder/kell29.htm)

In \_Speed and Politics\_ (1986 [1977]), Virilio undertakes his first sustained attempt to delineate the importance of accelerated speed, of the impact of technologies of motion, of types of mobility and their effects in the contemporary era. Subtitled "Essay on Dromology," Virilio proposes what he calls a "dromomatics" which interrogates the role of speed in history and its important functions in urban and social life, warfare, the economy, transportation and communication, and other aspects of everyday life. "Dromology" comes from the Latin term, dromos, signifying race, and dromology studies how innovations in speed influence social and political life. The "dromocratic revolution" for Virilio involves means of fabricating speed with the steam engine, then the combustion engine, and in our day nuclear energy and instantaneous forms of warfare and communication. Virilio was initially an urbanist who suggests that the city is a dwelling place organized by channels of communication and transportation, penetrated by roadways, canals, coastlines, railroads, and now airports. Each crossing has its speed limits, its regulations, and its systematic enclosure and spaces with in a system of societal organization. The city itself is a conglomeration of these roads, a stopover for travel, and a system of "habitable circulation" (Virilio 1986: 6). City life unfolds in the spectacle of the street with its progressions and movements, its institutions and events, mobilizing and moving flows of traffic and people. Likewise, politics unfolds in the streets and urban sites of demonstration, debate, revolt, and revolutionary insurrection. Cyberspace, Virilio claims, supplies another space without the usual coordinates of space and time that also produces a disorienting and disembodying form of experience in which communication and interaction takes place instantaneously in a new global time, overcoming boundaries of time and space. It is a disembodied space with no fixed coordinates in which one loses anchorage in one's body, nature, and social community. It is thus for Virilio a dematerialized and abstract realm in which cybernauts can become lost in space and divorced from their bodies and social world. In addition, Virilio analyzes and denounces what he calls "a pernicious industrialization of vision" (1997b: 89) and what he fears is a displacement of vision by machines. Virilio is afraid that increasingly visions machines are seeing for us, ranging from cameras to video to satellite surveillance to nanotechnology which probes the body (and next the mind?). For Virilio, we are increasingly subjected to bombardment by images and information and thus by "a discreet pollution of our vision of the world through the sundry tools of communication" (1997b: 96). Moreover, he fears, media like cinema and television train and constrain vision, leading to degradation of vision and experience: "If, according to Kafka, cinema means pulling a uniform over your eyes, television means pulling on a straitjacket, stepping up an eye training regime that leads to eye disease, just as the acoustic intensity of the walkman ends in irreversible lesions in the inner ear" (1997b: 97). Shrilly technophobic and consistently hysterical, Virilio demonizes modern information and communication technologies, suggesting that they are do irreparable damage to the human being. Sometimes over-the-top rhetorical, as in the passage just cited, Virilio's 1990's comments on new information technology suggest that he is deploying the same model and methods to analyze the new technologies that he used for war technology. He speaks regularly of an "information bomb" that is set to explode (1995a, 1995b, 1995c, 1997a, and 1997b), evoking the specter of "a choking of the senses, a loss of control of reason of sorts" in a flood of information and attendant disinformation. Deploying his earlier argument concerning technology and the accident, Virilio argues that the information superhighway is just waiting for a major accident to happen (1995a and 1995b; 1997a and 1997b), which will be a new kind of global accident, effecting the whole globe, "the accidents of accidents" (Epicurus): "The stock market collapse is merely a slight prefiguration of it. Nobody has seen this generalized accident yet. But then watch out as you hear talk about the 'financial bubble' in the economy: a very significant metaphor is used here, and it conjures up visions of some kind of cloud, reminding us of other clouds just as frightening as those of Chernobyl..." (1995b). In a 1995 interview with German media theorist Friedrich Kittler (1995c), titled "The information Bomb," Virilio draws an analogy between the nuclear bomb and the "information bomb," talking about the dangers of "fallout" and "radiation" from both. In contrast to the more dialectical Kittler, Virilio comes off as exceedingly technophobic in this exchange and illicitly, in my view, deploys an amalgam of military and religious metaphors to characterize the world of the new technologies. In one exchange, Virilio claims that "a caste of technology-monks is coming up in our times," and "there exist monasteries (of sorts whose goal it is to pave the way for a (kind of) 'civilization' that has nothing to do with civilization as we remember it." These monks are avatars of a "technological fundamentalism" and "information monotheism," a world-view that replaces previous humanist and religious worldviews, displacing man and god in favor of technology. [This world-view] comes into being in a totally independent manner from any controversy. It is the outcome of an intelligence without reflection or past. And with it goes what I think as the greatest danger (of all), the derailment, the sliding down into the utopian, into a future without humanity. And that is what worries me. I believe that violence, nay hyperviolence, springs out of this fundamentalism. Virilio goes on to claim that fallout from the "information bomb" will be as lethal for the socius as nuclear bombs, destroying social memory, relations, traditions, and community with an instantaneous overload of information. Thus, the technological "monks" who promote the information revolution are guilty of "sins in technical fundamentalism, of which we witness the consequences, the evil effects, today." One wonders, however, if the discourse of "sin," "evil," and "fundamentalism" is appropriate to characterize the effects and uses of new technologies which are, contrary to Virilio, hotly and widely debated, hardly monolithic, and, in my view, highly ambiguous, mixing what might be appraised as positive and negative features and effects. Yet Virilio is probably correct that the dominant discourse is largely positive and uncritical and that we should be aware of negative aspects and costs of the new technologies and debate their construction, structure, uses, and effects. Virilio is also right that they constitute at least a threat to community and social relations, as previously established, though one could argue that the new communities and social relations generated by use of the new technologies have positive dimensions as well as potentially negative ones. Virilio notes as well the ways that new technologies are penetrating the human body and psyche, taking over previous biological, perceptual, and creative functions of human beings, making humans appendages of a technological apparatus. He writes: "I am a materialist of the body which means that the body is the basis of all my work" (Virilio 1997a: 47). In his early work, Virilio spoke of the body as "a vector of speed" and "metabolic vehicle" in which increased speed and velocity overwhelmed the human sensorium and empowered controllers of technologies of speed over other humans (1986). In more recent work, he has described the body as a planet, as a unique center around which objects gravitate, and criticizes increasing derealization of the body in cyberspace and virtual technologies (1997a and 1997b). Virilio is thus in part a materialist humanist and phenomenologist who is disturbed by the invasion of the human body by technology and the substitution of the technological for the human and lived experience. We noted above Virilio's disagreement with Baudrillard over the issue of simulation which Virilio prefers to interpret in terms of substitution of one mode of experience or representation for another. Virilio's project is to describe the losses, the disappearances, of the substitution, describing now technology displaces human faculties and experience, subjecting individuals to ever more powerful modes of technological domination and control. Thus, Virilio describes the effects of new technologies in terms of an explosion of information as lethal as nuclear explosion and warns of the ubiquity of new types of accident that will require new modes of deterrence and dissuasion. He also envisages progressive derealization and dematerialization of human beings in the realm of virtual reality which may come to rule every realm of life from war to sex. From this perspective, technology emerges as the major problem and threat of the contemporary era, as a demonic force that threatens to erase the human. Much as his predecessors, Heidegger and Ellul, Virilio warns of the totalitarian threat in technology and calls for a critical discourse on technology, recognition of its possible negative effects, and regulation of technological development, subjecting technology to human and political control. Yet Virilio has never really theorized technology per se, and uses the same model and categories to analyze war technology to characterize new information technology. Thus, he has not really unravelled the riddle of technology which would have to interrogate its fascination, power, and complexity, and not just its negativity. Virilio criticizes the discourses of technophilia, that would celebrate technology as salvation, that are totally positive without critical reservations, but he himself is equally one-sided, developing a highly technophobic and negative discourse that fails to articulate any positive aspects or uses for new technologies, claiming that negative and critical discourses like his own are necessary to counter the overly optimistic and positive discourses. In a sense, this is true and justifies Virilio's predominantly technophobic discourse, but raises questions concerning the adequacy of Virilio's perspectives on technology as a whole and the extent to which his work is of use in theorizing the new technologies with their momentous and dramatic transformation of every aspect of our social and everyday life.

#### Virilio’s critique doesn’t apply to modern technology – no solvency Stevenson 2 - PhD in social sciences from Cambridge University, professor of social sciences at the University of Nottingham, UK (Nick, “Understanding Media Cultures: Social Theory and Mass Communication.” 2002) //lf

I. The most obvious limitation of Virilio's approach is his pronounced techno-phobia. To give one example amongst the many available in his work. The development of what Virilio calls a political economy of speed is such that at times he sounds as though the only way of resisting the totalitarian ambitions of technology is through technological abstinence. The political trajectory of such a position is both conservative and reactionary. Unlike say Castells, Virilio's politics and social theory fail to appreciate the ways in which contemporary society and culture has been unalterably transformed by the impact of new technology. There is then a lingering sense within Virilio's writing of a possible return to a society with low levels of technological development. While such views may indeed form part of a resistance to certain features of contemporary media and social devel­opment, they can hardly be expected to generate a sustainable political perspective working within the contradictions and ambivalences of the present. Indeed Virilio's position on the information society often comes close to the nco-Luddism described by Castells (1998b). Within this Virilio misses the opportunity to think more constructively as to how new technologies might become utilised by inclusive forms of social development. That is, if a globally sustainable planetary economy is to become possible it will be built through the new information technologies, not their abolition. The main problem here being that Virilio offers an excessively one­sided view of technology which 'substitutes moralising critique for social analysis and political action' (Kcllner, 2000). The development of the media of mass communications has gradually seen the decline of print as the dominant form of communication and the rise of an audio-visual domain. Virilio links the visualisation of the media into narratives of decline where our perceptions of reality are progressively undermined by a speed culture. As I have indicated, Virilio tends to see progressive political possibilities in reversing this process, with human populations better able to make contact with others through face-to-face communication and print cultures. While there is much that could be said on the superficiality of much visual culture and its progressive underming of literate cultures, such an analysis is too sweeping. The popularisation of the media, which has accompanied the rise of television and its increasingly visual nature of media cultures, has also made public cultures and associated debates open to a greater number of people. While the visualisation of media cultures can indeed be linked into narratives of control and surveillance in the way that Virilio suggests, it can equally be connected into a progressive democra-tisation of everyday life. The visual bias of much media and communication provides social movements with considerable opportunities to interrupt the flow of dominant media messages, by staging dramatic media events and engaging in image manipu­lation. We can make a similar argument in respect of the development of the Net. As Dahlgren (2001) has argued the partial displacement of hierarchical forms of information that the Net makes available confuses the boundaries between who is and who is not a journalist. While these arguments have been carried too far by some Net enthusiasts the possibilities that 'ordinary" people have for constructing their own sites of images, information and discourse is greatly enhanced by the arrival of new media. Seemingly these and other democratic possibilities are missed by a critique which offers an overly one-sided view of new media technologies. 3. Virilio, as I have indicated, seeks to make a positive virtue out of his pessimistic reflections on new media. His argument positions him firmly against those who would argue in favour of the potentially liberating promise of the web. However Mark Poster (199S, 1996, 1997) argues that such reflections actually spell the inability of critical theory to understand the significance of new media. That is, critical theory is overwhelmingly concerned with whether or not the media limit or foster autonomous social relations, rather than investigating the ways in which media might constitute new subject positions. For Poster (1995:24) what is at stake is not the way new media help foster domination or resistance, but 'a broad and extensive change in the culture, in the way identities are structured'. That is virtual reality helps evoke new possibilities for the imagination given its emphasis upon play, simulation and discovery. The enthusiasm for the Net. then, is not an escape from reality, but from the dominant codes of modernity which sought to articulate a view of the subject as autonomous and rational. Within virtual com-munities subjects are able to explore the boundaries of different identity formations while pleasurably entering into previously unexplored imaginary worlds. It is new media's relatively decentralised structure that potentially turns everyone into a producer and a consumer of information that constitutes subjects as multiple and unstable. These possibilities dispense with the opposition between a 'real' and fictitious' community and enable participants to express themselves without the usual visual clues and markers. Such a siruation encourages the proliferation of local narratives, the experience of different realities and a diversity of knowledges. Again if it is the unfixing of subject positions that excites Poster it is the escape from reality that seems to bother Virilio. The problem being that such is the strength of Virilio's repudiation of new media he leaves unexplored the positions of those who have become its most enthusiastic advocates. Notable here is Virilto'sdismissal of cyberfeminism. The limitations of this particular mixture of theoretical and political concerns aside, Virilio argues that cyberfeminism is a dead-end, given that it seems to celebrate 'the replacement of emotions by electrical impulses' (Armitagc. 2000b: 51 >. What is notable here is Virilio's resistance to the idea that cybercultures could impact upon modern identity formations in ways which are not always reducible to humans being invaded by the destructive logics of technology. Such a position, then, fails to engage with the more ambivalent and more culturally complex features of identity politics in respect of the Net. 4. Finally, missing from Virilio's argument is an account of the way in which new media may become linked into the contestation of cultural identity. Virilio's analysis offers a picture of human subjectivity increasingly limited and crippled by the impact of technology. Here there is a strong family resemblance between Virilio and a host of cultural critics who argue that humanistic sensibilities are currently under attack by a technologically determined present (Roszak, 1986). Such perspectives offer specific narratives of decline, where more 'authentic' cultures are gradually replaced by technologically induced sensibilities. The development of what Postman (1993) calls a technopoly is ushered into place when common cultures arc progressively shaped by the requirements of technology. A technopoly displaces questions of cultural value and quality by championing efficiency, objective measurement and quantity. Virilio's radicalness comes in taking these arguments further by suggesting such is technology's dominance over culture that it is actually pushing global societies ever closer to their own destruction. Without wishing to dismiss these perspectives out of hand, such viewpoints have a con­servative bent and often underestimate the extent to which popular cultures are capable of sustaining a diverse range of tastes and sensibilities. Indeed, if we follow these critical points we might ask what is the social basis for technophobiar Andrew Ross (1994) argues that technophobia amongst intellectuals and experts can be connected to a fear that the development of technology wilt erode their traditional status and store of cultural capital. This fear (which is not without basis) is that the knowledge economy requires the creation of an obedient, instrumental and efficient knowledge class. While these arc important considerations. Virilio does not demonstrate sufficient reflexivity in attempting to position his analysis within a wider social field. Put differently, we might argue that because Virilio fails to consider how his concerns can be linked to a traditional knowledge class, he thereby neglects to analyze different identity formations to his own.

#### Technological advancement solves its own impact—accelerated progress will make us more likely to prevent accidents

BOSTROM 2003 (Nick, Faculty of Philosophy, Oxford University, “Transhumanism FAQ,” October,

http://www.transhumanism.org/index.php/WTA/faq21/68/)

Superintelligence is an example of a technology that seems especially worth promoting because it can help reduce a broad range of threats. Superintelligent systems could advise us on policy and make the progress curve for nanotechnology steeper, thus shortening the period of vulnerability between the development of dangerous nanoreplicators and the deployment of effective defenses. If we have a choice, it seems preferable that superintelligence be developed before advanced nanotechnology, as superintelligence could help reduce the risks of nanotechnology but not vice versa. Other technologies that have wide risk-reducing uses include intelligence augmentation, information technology, and surveillance. These can make us smarter individually and collectively or make enforcement of necessary regulation more feasible. A strong prima facie case therefore exists for pursuing these technologies as vigorously as possible. Needless to say, we should also promote non-technological developments that are beneficial in almost all scenarios, such as peace and international cooperation.

#### Calculation and technical control is key to preserving life and an ethical obligation to the other

Campbell 99 -David Campbell, Professor of International Politics, University of Newcastle, 1999 (Moral Spaces: Rethinking Ethics and World Politics) p. 56

104. Ibid., 76-79. Levinas has also argued for a politics that respects a double injunction. When asked "Is not ethical obligation to the other a purely negative ideal, impossible to realize in our everyday being-in-the-world," which is governed by "ontological drives and practices"; and "Is ethics practicable in human society as we know it? Or is it merely an invitation to apolitical acquiescence?" Levinas's response was that "of course we inhabit an ontological world of technological mastery and political self-preservation. Indeed, without these political and technological structures of organization we would not be able to feed mankind. This is the greatest paradox of human existence: we must use the ontological for the sake of the other, to ensure the survival of the other we must resort to the technico-political systems of means and ends." Kearney and Levinas, "Dialogue with Emmanuel Levinas," 28.

#### Virilio’s basic assumption is flawed. Speed of tech doesn’t ruin the political—Opposite is true

Grove ‘8 Jairus Victor Grove is a Ph.D. candidate at Johns Hopkins University in International Relations and Political Theory. His research focuses on the new materialities of politics and warfare. He studies the effects of new forms of warfare on soldiers and civilian populations in urban settings. Chapter 1: A Schmittian Century?: From Nuclear Leviathan to Nuclear-Sovereign-Assemblage – March 17, 2008 – http://becomingwar.blogspot.com/2008/03/chapter-1-schmittian-century-from.html

Initially nuclear weapons seemed to solidify even complete the decisionistic model of sovereignty once and for all. In Virilio’s reading of Schmitt’s the state of emergency became permanent and democracy ended once it became possible for a single individual to decide to got to war and to finish that war in 30 minutes. At first glance Virilio’s apocalyptic diagnosis seems accurate. Nuclear weapons at their current numbers could destroy the entire planet and given the structure of the United States nuclear command any Congressional or popular attempt to stop the war would be in vain. This is the backbone of Virilio’s argument. Politics and a democratic balance of power require time. Time to react, time to respond, time to debate, time to strategize, time to implement and ICBMS nullify time. But Virilio is wrong. The threat of the extreme case has obscured the actual or present case that presents new opportunities for intervention. Politics, whether micro or macro, does not begin and end with the sovereign decision; the sovereign decision (both expressively and in its enactment) emerges from a relay of forces, connections, and other previous decisions, resonances, forces, and actants that are presupposed in each subsequent iteration of the sovereign decision, and layered in multiple streams of time. Even an increasingly automated nuclear arsenal requires the participation of literally millions of people and countless networks, objects, tectonic stability, stable solar flare activity and on and on. The decision only appears singular when Virilio truncates time to the moment the president ‘pushes the button.’ We are not as of yet in that moment so other temporal rhythms abound and each part of the nuclear assemblage follows a different temporal course. Certainly the sovereign decision is a powerful, expressive, performative act of individuation for the sovereign and highly affective in mobilizing populations, but it is not self-constituted or self-causal. The process of individuation and mobilization necessitates a field of relations and resonances from which the sovereign decision emerges. The decision is also not decisive. Instead it territorializes the relations from which it emerges through its resonant modulation. The enunciation of a sovereign decision (a distinct inquiry from the ‘making of a decision. Certainly no less emeshed but nonetheless ought to remain analytically different) is something like a refrain, the sovereign—in so far as it is constituted by the enunciation of decisions—is a condensation point for national ethos, affect, and institutional identity making. Each decision is constitutive not of the ‘sovereign’ as is the case in Schmitt’s analysis but of a sovereign point of identification or reified, dogmatic consistency which can be recognized but need not remain static or immobile. Again however such a node is only possible because of its attachments whether physical or resonant (both material) to the complex system of tradition, culture, wires, telephones, satellites, nuclear silos, television cameras, previous sovereign decisions, personal affective characteristics, character, etc. This list is not exhaustive by any measure however it gestures in the direction of what I am trying to get at. The sovereign is not an individual, at best it is an iterative series of moments of performative or expressive individuation resulting from a complex interface with machines, networks, affective fields. The assemblage has a life of its own that cannot and should not be reduced to a single point simply because that is most consistent with our common sensibilities. In some sense the sovereign is a prosthesis or interface to be worn by whoever is elected to office. (President as first-person-shooter?) This does in part explain why there is so little transition time between each sovereign and so little variation in war powers. It is reference point or index for a history of actions and events made more complex by the function it is meant or believed to serve. It is the titular focal point of an assemblage that if recognized as such would undermine its own function. An assemblage that function because it can inspire belief in it is unity not its dispersed and multivalent organization. The irony is that the development of miles of fiberoptic networks, new technological interfaces and mobility was supposed to save the centralized and hierarchical sovereign form from its obvious strategic liability—that of being an easy target. However in increasing its ‘survivability’ it has also opened innumerable points of access to the supposed center. Each access point whether it be technological, affective, or economic that can recenter, or reterritorialize the sovereign assemblage. I do not want to make this sound ‘easy’ or ‘painless’ however as this ‘dispersed’ or redundant network system has become ‘everyday’ increasingly the President has been unaware of exactly who is in control or even at how many levels the Nuclear-sovereign-