# 1NC

## 1NC – Framing

### 1NC – Framing – Predictions

#### Complexity results in self-organization – adaptive and co-evolving systems which are multifaceted and make monocausal analysis impossible

Kavalski 07 [Emilian Kavalski, the Li Dak Sum Chair Professor in China-Eurasia Relations and the Director of the Global Institute for Silk Roads Studies at the University of Nottingham Ningbo, 9-4-2007, "The fifth debate and the emergence of complex international relations theory: notes on the application of complexity theory to the study of international life," Taylor &amp; Francis, https://www.tandfonline.com/doi/abs/10.1080/09557570701574154, accessed 4-9-2021]LHSBC

Complexity theory proffers two dominant types of self-organization: adaptation and co-evolution (Guastello 2002). Adaptation reflects complexity’s ability to learn to adapt to transformations in its internal and external environments (Axelrod 1997, 153). Such adjustment concerns either the system as a whole, or its parts, or both (Cederman 1997, 50), and reflects the ability of complex systems to keep their essential structures within acceptable limits (Rosenau 2003, 214). The notion of co-evolution refers to the capacity of a system to change with the environment. Since the environment is composed of other systems, those other systems also change and impact on each other as a result of this interaction (Walby 2007). It should be emphasized that adaptation and co-evolution are complementary (and often simultaneous) processes of selforganization (Rihani 2002, 236; Rosenau 1990, 174) which indicate the resilience of complex systems—that is, their ability to adjust to change.6 The notion of resilience calls attention to the significance of feedback for the ways complex systems behave (Jervis 1997). Such focus on feedback emphasizes the centrality of complex interactions—that is, the multidirectional feedback dynamics—to the process of self-organization. Most authors distinguish between positive and negative feedback (Jervis 1997, 125–130; Manson 2001, 407). Positive feedback is self-reinforcing—that is, a change in one direction sets in motion pressures that produce further change in the same direction. For instance, trivial events could be magnified, through positive feedback, into major upheavals—as indicated by the ‘Romanian Revolution’ of 1989 that started as an isolated incident involving primarily the Hungarian minority in the town of Timis¸oara (that is, the eviction of the local priest La´szlo To˝ke´s), but which grew into demands for broader political reform and led to the removal and eventual execution of Nicolae and Elena Ceaus¸escu.7 Negative feedback is stabilizing—that is, the change triggers forces that counteract the initial alteration and return the system to something like its original position. Thus, regardless of the upheaval caused by the 1989 student protests on Beijing’s Tiananmen Square and the subsequent crackdown, the Chinese Communist Party has remained (arguably) unperturbed in its control of the country (Rosenau 1990). ∂ These instances draw attention to the issue of causality in complex systems. Owing to the unpredictability of interactions, it is impossible to discern ‘the causal arrows, precisely because in feedback loops causal arrows are directionless or circular’ (Hoffman and Riley 2002, 311). In this respect, complex systems indicate sensitivity to alterations in initial conditions and random events. Thus, actions have indirect and complicated effects and outcomes may not correspond with the intentions of any of the actors. Interactions are more likely than not to call up unintended consequences that can defeat purposive behaviour, because, in a system, the fates of the units and their relations with others are strongly influenced by interactions at other places and at earlier periods of time ... [and] it is hard to treat issues separately: disputes that would be small if they could be isolated are highly consequential because the world is tightly interconnected. (Jervis 1997, 17–24) It is this density of self-organization that makes complex systems—like the pattern of international politics—hard to understand (Snyder and Jervis 1993, 5). The following sections address the frameworks for understanding and explanation implied in the use of CT to the study of international life and the ways in which it constitutes a complex system.

#### “IR expertise” is a reverse qualification.

Menand 5 – Louis Menand has contributed to The New Yorker since 1991 and has been a staff writer since 2001. His book “The Metaphysical Club” was awarded the 2002 Pulitzer Prize for history and the Francis Parkman Prize from the Society of American Historians. He was an associate editor at The New Republic from 1986 to 1987, an editor at The New Yorker from 1992 to 1993, and a contributing editor at The New York Review of Books from 1994 to 2001. He is the Lee Simpkins Family Professor of Arts and Sciences and the Anne T. and Robert M. Bass Professor of English at Harvard University. In 2016, he was awarded the National Humanities Medal by President Obama, November 28th ("Everybody’S an Expert", New Yorker, Available online at https://www.newyorker.com/magazine/2005/12/05/everybodys-an-expert, Accessed 11-10-2020)

It is the somewhat gratifying lesson of Philip Tetlock’s new book, “Expert Political Judgment: How Good Is It? How Can We Know?” (Princeton; $35), that people who make prediction their business—people who appear as experts on television, get quoted in newspaper articles, advise governments and businesses, and participate in punditry roundtables—are no better than the rest of us. When they’re wrong, they’re rarely held accountable, and they rarely admit it, either. They insist that they were just off on timing, or blindsided by an improbable event, or almost right, or wrong for the right reasons. They have the same repertoire of self-justifications that everyone has, and are no more inclined than anyone else to revise their beliefs about the way the world works, or ought to work, just because they made a mistake. No one is paying you for your gratuitous opinions about other people, but the experts are being paid, and Tetlock claims that the better known and more frequently quoted they are, the less reliable their guesses about the future are likely to be. The accuracy of an expert’s predictions actually has an inverse relationship to his or her self-confidence, renown, and, beyond a certain point, depth of knowledge. People who follow current events by reading the papers and newsmagazines regularly can guess what is likely to happen about as accurately as the specialists whom the papers quote. Our system of expertise is completely inside out: it rewards bad judgments over good ones. “Expert Political Judgment” is not a work of media criticism. Tetlock is a psychologist—he teaches at Berkeley—and his conclusions are based on a long-term study that he began twenty years ago. He picked two hundred and eighty-four people who made their living “commenting or offering advice on political and economic trends,” and he started asking them to assess the probability that various things would or would not come to pass, both in the areas of the world in which they specialized and in areas about which they were not expert. Would there be a nonviolent end to apartheid in South Africa? Would Gorbachev be ousted in a coup? Would the United States go to war in the Persian Gulf? Would Canada disintegrate? (Many experts believed that it would, on the ground that Quebec would succeed in seceding.) And so on. By the end of the study, in 2003, the experts had made 82,361 forecasts. Tetlock also asked questions designed to determine how they reached their judgments, how they reacted when their predictions proved to be wrong, how they evaluated new information that did not support their views, and how they assessed the probability that rival theories and predictions were accurate. Tetlock got a statistical handle on his task by putting most of the forecasting questions into a “three possible futures” form. The respondents were asked to rate the probability of three alternative outcomes: the persistence of the status quo, more of something (political freedom, economic growth), or less of something (repression, recession). And he measured his experts on two dimensions: how good they were at guessing probabilities (did all the things they said had an x per cent chance of happening happen x per cent of the time?), and how accurate they were at predicting specific outcomes. The results were unimpressive. On the first scale, the experts performed worse than they would have if they had simply assigned an equal probability to all three outcomes—if they had given each possible future a thirty-three-per-cent chance of occurring. Human beings who spend their lives studying the state of the world, in other words, are poorer forecasters than dart-throwing monkeys, who would have distributed their picks evenly over the three choices. Tetlock also found that specialists are not significantly more reliable than non-specialists in guessing what is going to happen in the region they study. Knowing a little might make someone a more reliable forecaster, but Tetlock found that knowing a lot can actually make a person less reliable. “We reach the point of diminishing marginal predictive returns for knowledge disconcertingly quickly,” he reports. “In this age of academic hyperspecialization, there is no reason for supposing that contributors to top journals—distinguished political scientists, area study specialists, economists, and so on—are any better than journalists or attentive readers of the New York Times in ‘reading’ emerging situations.” And the more famous the forecaster the more overblown the forecasts. “Experts in demand,” Tetlock says, “were more overconfident than their colleagues who eked out existences far from the limelight.” People who are not experts in the psychology of expertise are likely (I predict) to find Tetlock’s results a surprise and a matter for concern. For psychologists, though, nothing could be less surprising. “Expert Political Judgment” is just one of more than a hundred studies that have pitted experts against statistical or actuarial formulas, and in almost all of those studies the people either do no better than the formulas or do worse. In one study, college counsellors were given information about a group of high-school students and asked to predict their freshman grades in college. The counsellors had access to test scores, grades, the results of personality and vocational tests, and personal statements from the students, whom they were also permitted to interview. Predictions that were produced by a formula using just test scores and grades were more accurate. There are also many studies showing that expertise and experience do not make someone a better reader of the evidence. In one, data from a test used to diagnose brain damage were given to a group of clinical psychologists and their secretaries. The psychologists’ diagnoses were no better than the secretaries’. The experts’ trouble in Tetlock’s study is exactly the trouble that all human beings have: we fall in love with our hunches, and we really, really hate to be wrong. Tetlock describes an experiment that he witnessed thirty years ago in a Yale classroom. A rat was put in a T-shaped maze. Food was placed in either the right or the left transept of the T in a random sequence such that, over the long run, the food was on the left sixty per cent of the time and on the right forty per cent. Neither the students nor (needless to say) the rat was told these frequencies. The students were asked to predict on which side of the T the food would appear each time. The rat eventually figured out that the food was on the left side more often than the right, and it therefore nearly always went to the left, scoring roughly sixty per cent—D, but a passing grade. The students looked for patterns of left-right placement, and ended up scoring only fifty-two per cent, an F. The rat, having no reputation to begin with, was not embarrassed about being wrong two out of every five tries. But Yale students, who do have reputations, searched for a hidden order in the sequence. They couldn’t deal with forty-per-cent error, so they ended up with almost fifty-per-cent error. The expert-prediction game is not much different. When television pundits make predictions, the more ingenious their forecasts the greater their cachet. An arresting new prediction means that the expert has discovered a set of interlocking causes that no one else has spotted, and that could lead to an outcome that the conventional wisdom is ignoring. On shows like “The McLaughlin Group,” these experts never lose their reputations, or their jobs, because long shots are their business. More serious commentators differ from the pundits only in the degree of showmanship. These serious experts—the think tankers and area-studies professors—are not entirely out to entertain, but they are a little out to entertain, and both their status as experts and their appeal as performers require them to predict futures that are not obvious to the viewer. The producer of the show does not want you and me to sit there listening to an expert and thinking, I could have said that. The expert also suffers from knowing too much: the more facts an expert has, the more information is available to be enlisted in support of his or her pet theories, and the more chains of causation he or she can find beguiling. This helps explain why specialists fail to outguess non-specialists. The odds tend to be with the obvious. Tetlock’s experts were also no different from the rest of us when it came to learning from their mistakes. Most people tend to dismiss new information that doesn’t fit with what they already believe. Tetlock found that his experts used a double standard: they were much tougher in assessing the validity of information that undercut their theory than they were in crediting information that supported it. The same deficiency leads liberals to read only The Nation and conservatives to read only National Review. We are not natural falsificationists: we would rather find more reasons for believing what we already believe than look for reasons that we might be wrong. In the terms of Karl Popper’s famous example, to verify our intuition that all swans are white we look for lots more white swans, when what we should really be looking for is one black swan. Also, people tend to see the future as indeterminate and the past as inevitable. If you look backward, the dots that lead up to Hitler or the fall of the Soviet Union or the attacks on September 11th all connect. If you look forward, it’s just a random scatter of dots, many potential chains of causation leading to many possible outcomes. We have no idea today how tomorrow’s invasion of a foreign land is going to go; after the invasion, we can actually persuade ourselves that we knew all along. The result seems inevitable, and therefore predictable. Tetlock found that, consistent with this asymmetry, experts routinely misremembered the degree of probability they had assigned to an event after it came to pass. They claimed to have predicted what happened with a higher degree of certainty than, according to the record, they really did. When this was pointed out to them, by Tetlock’s researchers, they sometimes became defensive. And, like most of us, experts violate a fundamental rule of probabilities by tending to find scenarios with more variables more likely. If a prediction needs two independent things to happen in order for it to be true, its probability is the product of the probability of each of the things it depends on. If there is a one-in-three chance of x and a one-in-four chance of y, the probability of both x and y occurring is one in twelve. But we often feel instinctively that if the two events “fit together” in some scenario the chance of both is greater, not less. The classic “Linda problem” is an analogous case. In this experiment, subjects are told, “Linda is thirty-one years old, single, outspoken, and very bright. She majored in philosophy. As a student, she was deeply concerned with issues of discrimination and social justice and also participated in antinuclear demonstrations.” They are then asked to rank the probability of several possible descriptions of Linda today. Two of them are “bank teller” and “bank teller and active in the feminist movement.” People rank the second description higher than the first, even though, logically, its likelihood is smaller, because it requires two things to be true—that Linda is a bank teller and that Linda is an active feminist—rather than one. Plausible detail makes us believers. When subjects were given a choice between an insurance policy that covered hospitalization for any reason and a policy that covered hospitalization for all accidents and diseases, they were willing to pay a higher premium for the second policy, because the added detail gave them a more vivid picture of the circumstances in which it might be needed. In 1982, an experiment was done with professional forecasters and planners. One group was asked to assess the probability of “a complete suspension of diplomatic relations between the U.S. and the Soviet Union, sometime in 1983,” and another group was asked to assess the probability of “a Russian invasion of Poland, and a complete suspension of diplomatic relations between the U.S. and the Soviet Union, sometime in 1983.” The experts judged the second scenario more likely than the first, even though it required two separate events to occur. They were seduced by the detail. It was no news to Tetlock, therefore, that experts got beaten by formulas. But he does believe that he discovered something about why some people make better forecasters than other people. It has to do not with what the experts believe but with the way they think. Tetlock uses Isaiah Berlin’s metaphor from Archilochus, from his essay on Tolstoy, “The Hedgehog and the Fox,” to illustrate the difference. He says: Low scorers look like hedgehogs: thinkers who “know one big thing,” aggressively extend the explanatory reach of that one big thing into new domains, display bristly impatience with those who “do not get it,” and express considerable confidence that they are already pretty proficient forecasters, at least in the long term. High scorers look like foxes: thinkers who know many small things (tricks of their trade), are skeptical of grand schemes, see explanation and prediction not as deductive exercises but rather as exercises in flexible “ad hocery” that require stitching together diverse sources of information, and are rather diffident about their own forecasting prowess. A hedgehog is a person who sees international affairs to be ultimately determined by a single bottom-line force: balance-of-power considerations, or the clash of civilizations, or globalization and the spread of free markets. A hedgehog is the kind of person who holds a great-man theory of history, according to which the Cold War does not end if there is no Ronald Reagan. Or he or she might adhere to the “actor-dispensability thesis,” according to which Soviet Communism was doomed no matter what. Whatever it is, the big idea, and that idea alone, dictates the probable outcome of events. For the hedgehog, therefore, predictions that fail are only “off on timing,” or are “almost right,” derailed by an unforeseeable accident. There are always little swerves in the short run, but the long run irons them out. Foxes, on the other hand, don’t see a single determining explanation in history. They tend, Tetlock says, “to see the world as a shifting mixture of self-fulfilling and self-negating prophecies: self-fulfilling ones in which success breeds success, and failure, failure but only up to a point, and then self-negating prophecies kick in as people recognize that things have gone too far.”

#### Observer effect prevents effective projections.

Obi-Okolie 14 – Obi-Okolie, Favour, Delta State University, Abraka Delta State, Nigeria, 2014 (“Towards A Quantum Mechanical Model of Foreign Policy Analysis”, International Affairs and Global Strategy, Vol.27, ISSN 2224-574X (Paper) ISSN 2224-8951 (Online), Available online at <https://www.iiste.org/Journals/index.php/IAGS/article/view/18219/18594>, Accessed 11-08-2020)

Uncertainty, as noted earlier, is one of the key features of quantum mechanics. It holds that no matter how carefully we observe, even with adequate knowledge of initial conditions, we can never objectively understand a physical reality. Applying the concept to politics, Cioffi-Revilla defines uncertainty as the “lack of sureness or absence of strict determination in political life”44 Rathbun furthers that “information is ambiguous because the world is complex and can only be approximated and partially understood due to cognitive limitations.”45 He therefore sought to explain the element of uncertainty within mainstream IR theories. For realists, it is experienced in fear of each other’s intention, while rationalists try to cope with uncertainty through international institutions charged to monitor and signal benign intent. For constructivists, uncertainty stems from an assumption that states are uncertain about action to take when norms as defined by identity are absent. Then cognitivists argue that uncertainty emanates from the confusion caused by the complexity of international politics as well as mental limitations of statesmen. 46 Assessing uncertainty from the quantum mechanical framework, we begin with Heisenberg who is arguably the first to introduce the principle. From his perspective, we cannot completely describe an object since we cannot simultaneously describe its momentum and position with exactitude. The more accurately we understand position, the less accurately we understand the momentum, vice versa. As such, it becomes impossible to predict the destination of a moving object since we cannot accurately determine its position and momentum at the same time. From quantum mechanical thought, this is may be due to hidden variables and/or non-locality. Non-locality describes the possibility of a quantum state to interact with another quantum state of the same pair, even when separated by large distances without an established means of communication. By position we refer to the location of an object relative to a reference point while momentum is taken to mean the measure of the motion of an object relative to its mass and velocity. Position in theoretical physics is synonymous with the condition of a State prior to an action or event being analysed. By condition we mean the geographic and politico-economic structure of a State. In the same vein, the foreign policy action of a State in a given case, accounts for momentum in physics. Therefore, by directly applying Heisenberg’s argument to foreign policy analysis, it is impossible to completely understand foreign policy behaviour of a State by merely understanding its condition prior to the behaviour being analysed. Also, it is impossible to predict the outcome of a given foreign policy behaviour. This explains why despite efforts to predict the outcome of a given foreign policy behaviour, mainstream approaches to foreign policy analysis have routinely fallen short in this regard. A good example showing the compatibility of Heisenberg’s uncertainty in foreign policy analysis could be found in the recent Arab Spring. An understanding of the socio-political landscape of the Arab world had led scholars of different schools to conclude that democracy was essentially incompatible with the Arab world. However, at the outbreak of the region-wide uprising, scholars began to foretell democratization. Soon, scholars began to make reversals in their predictions, such that it is no longer fashionable to equate the Arab uprising with democratization. What is deducible from this instance is that, in agreement with Heisenberg’s uncertainty, it is impossible to understand the present and predict the future by simply understanding initial conditions. This position is also understood by recalling that whereas the Cold War engaged IR scholars in a war of paradigms, none of the theories and models predicted the end of the conflict.47 Schrodinger’s wave equation furthers our understanding of the compatibility of quantum mechanics with foreign policy analysis. Inferring from his postulation, it is impossible to understand the totality of a State’s foreign policy behaviour. Rather, every State possesses every possible theoretical element that can be attributed to a State’s foreign policy. For instance, before observation is made, every state is weak and strong at the same time; aggressive and accommodating; cooperative and competitive. However, upon observation, the observer interferes with reality such that the condition of the State aligns with the premonition of the observer/analyst. Thus, we are uncertain of a State’s foreign policy behaviour until we decide to observe and/or analyse. Upon analysis, our uncertainty is substituted by the ‘creation’ of reality. It is at this point therefore that the foreign policy analyst relinquishes every claim to objectivity, having created the reality s/he claims to analyse. Relating the foregoing to Bohr’s contribution to Quantum Mechanics, the foreign policy analyst can no longer be regarded as an impartial observer but as an active participant. The instrument with which s/he assesses a phenomenon directly interacts with the physical object being observed to influence the result obtained. Consequently, we could safely assume that if no one was observing, then nothing would be existing. Then, should we now assume that occurrences in international politics are the creation of analysts? To a large extent, the answer weighs to the affirmative and accounts for why certain state and non-state actors, cognizant of this fact, have immensely invested towards gaining the attention of observers/analysts. Terrorist organizations routinely post videos of violence on the internet for analysts to ‘create’ their existence. States regularly release videos and images of military drills and military hardware. The essence is to gain attention of analysts who would therefore ‘create’ the desired reality. Indeed, terrorism is non-existent until it is so designated by analysts. More so, war is simply what analysts and observers make of it. In addition to the foregoing, quantum mechanics gives us insight in understanding causation. This is chiefly in its notion of interconnectedness which carries potentially far-reaching implications for foreign policy analysis. According to Senge, et al, we are now aware that interconnectivity is the organizing principle of the universe.48 The universe is interconnected in a complex web or relationships such that we cannot adequately understand a physical reality without acknowledging its web of relationships. However, this aspect of the universe was ignored by the Newtonian scientists perhaps as a result of the pervasiveness of relationships which can sometimes fade into the background so that “only the apparently separate ‘things’ of the world are noticed.”49 If objects are interconnected within the universe, do we then assume same for humans and States? Of course, yes. This is largely because humans as well as States share the same feature with all other objects: wave-particle duality. As particles they have form, boundaries, and identity while as wave, they possess an unstructured potential which, according to Zohar, spreads out across the boundaries of space, time, choice and identity.50 Therefore, State and non-State actors, as applicable to other objects, are interconnected or better still entangled in a complex manner that makes it particularly tasking if not impossible to accurately assess foreign policy behaviour. From the foregoing, it could be assumed that quantum mechanics emphasizes what we cannot do over what we can do. How does it then help our understanding of foreign policy? The answer is not far-fetched. By identifying what we cannot do, quantum mechanics saves us from raising false alarms and making erroneous claims. It rather makes case for intellectual diligence by encouraging cross-paradigmatic approach to foreign policy analysis. It underscores that no single theory or approach to foreign policy analysis is on its own adequate for foreign policy analysis. Thus, by engaging all possible approaches, the analyst increases the proportion of objectivity in his/her analysis

### 1NC – Framing – Util/Extinction

#### Util is not value neutral, but conducive to amoral and egoistic decision making – Turns portable skills

Park et al. 16 [Gewnhi Park, Assistant Professor Department of Psychology @ Azusa Pacific University, “At the heart of morality lies neuro-visceral integration: lower cardiac vagal tone predicts utilitarian moral judgment” Social Cognitive and Affective Neuroscience, 2016, 1588--1596]

Dual process theories of moral judgments argue that utilitarian responses are driven by deliberative reasoning and have been favored to be more rational moral judgments (Greene et al., 2008; see also Feinberg et al., 2012). However, growing research has reported that utilitarian moral judgments are associated with antisocial traits, such as primary psychopathy, rational egoism, and explicit amoral and self-centered judgments (Bartels and Pizarro, 2011; Kahane et al., 2015). Here, we provide additional evidence showing that utilitarian inclinations are associated with lower abilities to integrate visceral responses into moral judgment. Interestingly, it has been reported that people with antisocial and psychopathic traits—who are characterized by deficits in such pro-social traits—have lower cardiac vagal tone (Raine, 1997; Hansen et al., 2007). These findings cast further doubt on whether utilitarian moral judgments in standard dilemmas should be considered the optimal responses to these dilemmas. Furthermore, there is a growing concern that dominant research in moral psychology may not accurately capture the philosophical view of utilitarianism (Kahane et al., 2015). Utilitarian moral judgments typically observed in hypothetical moral dilemmas—which often reflects one’s willingness to harm or sacrifice few individuals in an attempt to save more people—may not correspond to the philosophical view of utilitarianism—which highlights an impartial concern for the greater good (Kahane et al., 2015). In fact, recent research has failed to find the direct relationship between utilitarian judgments in the hypothetical moral dilemmas and a wide range of traits, attitudes, judgment and behaviors that reflect an impartial concern for the greater good (Kahane et al., 2015). This new emerging perspective calls for further research to understand the nature of the relationship between cardiac vagal tone and strong utilitarian tendencies defined by a philosophical view— that is an impartial concern for the greater good.

#### There’s more to the international system than what’s in front of the curtain – infinite volatility and black swans make linear readings of IR an impossibility

Taleb & Blythe 11 – \*Distinguished Professor of Risk Engineering at New York University’s Polytechnic Institute, AND \*\*Professor of International Political Economy at Brown University (Nassim and Mark, May/June 2011, “The Black Swan of Cairo How Suppressing Volatility Makes the World Less Predictable and More Dangerous,”

Why is surprise the permanent condition of the U.S. political and economic elite? In 2007–8, when the global ﬁnancial system imploded, the cry that no one could have seen this coming was heard everywhere, despite the existence of numerous analyses showing that a crisis was unavoidable. It is no surprise that one hears precisely the same response today regarding the current turmoil in the Middle East. The critical issue in both cases is the artiﬁcial suppression of volatility—the ups and downs of life—in the name of stability. It is both mis- guided and dangerous to push unobserved risks further into the statistical tails of the probability distribution of outcomes and allow these high-impact, low-probability “tail risks” to disappear from policymakers’ ﬁelds of observation. What the world is witnessing in Tunisia, Egypt, and Libya is simply what happens when highly constrained systems explode. Complex systems that have artiﬁcially suppressed volatility tend to become extremely fragile, while at the same time exhibiting no visible risks. In fact, they tend to be too calm and exhibit minimal variability as silent risks accumulate beneath the surface. Although the stated intention of political leaders and economic policymakers is to stabilize the system by inhibiting ﬂuctuations, the result tends to be the opposite. These artiﬁcially con- strained systems become prone to “Black Swans”—that is, they become extremely vulnerable to large-scale events that lie far from the statistical norm and were largely unpredictable to a given set of observers. Such environments eventually experi- ence massive blowups, catching everyone oª-guard and undoing years of stability or, in some cases, ending up far worse than they were in their initial volatile state. Indeed, the longer it takes for the blowup to occur, the worse the resulting harm in both economic and political systems. Seeking to restrict variability seems to be good policy (who does not prefer stability to chaos?), so it is with very good intentions that policymakers unwittingly increase the risk of major blowups. And it is the same misperception of the properties of natural systems that led to both the economic crisis of 2007–8 and the current turmoil in the Arab world. The policy implications are identical: to make systems robust, all risks must be visible and out in the open— ﬂuctuat nec mergitur(it ﬂuctuates but does not sink) goes the Latin saying. Just as a robust economic system is one that encourages early failures (the concepts of “fail small” and “fail fast”), the U.S. gov- ernment should stop supporting dictato- rial regimes for the sake of pseudostability and instead allow political noise to rise to the surface. Making an economy robust in the face of business swings requires allowing risk to be visible; the same is true in politics. SEDUCED BY STABILITY Both the recent ﬁnancial crisis and the current political crisis in the Middle East are grounded in the rise of complexity, interdependence, and unpredictability. Policymakers in the United Kingdom and the United States have long promoted policies aimed at eliminating ﬂuctuation— no more booms and busts in the economy, no more “Iranian surprises” in foreign policy. These policies have almost always produced undesirable outcomes. For example, the U.S. banking system became very fragile following a succession of pro- gressively larger bailouts and government interventions, particularly after the 1983 rescue of major banks (ironically, by the same Reagan administration that trum- peted free markets). In the United States, promoting these bad policies has been a bipartisan eªort throughout. Republicans have been good at fragilizing large corpora- tions through bailouts, and Democrats have been good at fragilizing the government. At the same time, the ﬁnancial system as a whole exhibited little volatility; it kept get- ting weaker while providing policymakers with the illusion of stability, illustrated most notably when Ben Bernanke, who was then a member of the Board of Gover- nors of the U.S. Federal Reserve, declared the era of “the great moderation” in 2004. Putatively independent central bankers fell into the same trap. During the 1990s, U.S. Federal Reserve Chair Alan Greenspan wanted to iron out the economic cycle’s booms and busts, and he sought to control economic swings with interest-rate reductions at the slightest sign of a downward tick in the economic data. Furthermore, he adapted his eco- nomic policy to guarantee bank rescues, with implicit promises of a backstop—the now infamous “Greenspan put.” These policies proved to have grave delayed side effects. Washington stabilized the market with bailouts and by allowing certain com- panies to grow “too big to fail.” Because policymakers believed it was better to do something than to do nothing, they felt obligated to heal the economy rather than wait and see if it healed on its own. The foreign policy equivalent is to support the incumbent no matter what. And just as banks took wild risks thanks to Greenspan’s implicit insurance policy, client governments such as Hosni Mubarak’s in Egypt for years engaged in overt plunder thanks to similarly reliable U.S. support. Those who seek to prevent volatility on the grounds that any and all bumps in the road must be avoided paradoxically increase the probability that a tail risk will cause a major explosion. Consider as a thought experiment a man placed in an artiﬁcially sterilized environment for a decade and then invited to take a ride on a crowded subway; he would be expected to die quickly. Likewise, preventing small forest ﬁres can cause larger forest ﬁres to become devastating. This property is shared by all complex systems. In the realm of economics, price con- trols are designed to constrain volatility on the grounds that stable prices are a good thing. But although these controls might work in some rare situations, the long-term effect of any such system is an eventual and extremely costly blowup whose cleanup costs can far exceed the beneﬁts accrued. The risks of a dictatorship, no matter how seemingly stable, are no diªerent, in the long run, from those of an artiﬁcially controlled price. Such attempts to institutionally engineer the world come in two types: those that conform to the world as it is and those that attempt to reform the world. The nature of humans, quite reasonably, is to in- tervene in an eªort to alter their world and the outcomes it produces. But government interventions are laden with unintended— and unforeseen—consequences, particularly in complex systems, so humans must work with nature by tolerating systems that absorb human imperfections rather than seek to change them. Take, for example, the recent celebrated documentary on the ﬁnancial crisis, Inside Job, which blames the crisis on the malfea- sance and dishonesty of bankers and the incompetence of regulators. Although it is morally satisfying, the ﬁlm naively over- looks the fact that humans have always been dishonest and regulators have always been behind the curve. The only diªerence this time around was the unprecedented magnitude of the hidden risks and a mis- understanding of the statistical properties of the system. What is needed is a system that can prevent the harm done to citizens by the dishonesty of business elites; the limited competence of forecasters, economists, and statisticians; and the imperfections of regulation, not one that aims to eliminate these ﬂaws. Humans must try to resist the illusion of control: just as foreign policy should be intelligence-proof (it should minimize its reliance on the competence of information-gathering organizations and the predictions of “experts” in what are inherently unpredictable domains), the economy should be regulator-proof, given that some regulations simply make the system itself more fragile. Due to the complexity of markets, intricate regulations simply serve to generate fees for lawyers and proﬁts for sophisticated derivatives traders who can build complicated ﬁnancial products that skirt those regulations. DON’T BE A TURKEY The life of a turkey before Thanksgiving is illustrative: the turkey is fed for 1,000 days and every day seems to conﬁrm that the farmer cares for it—until the last day, when conﬁdence is maximal. The “turkey problem” occurs when a naive analysis of stability is derived from the absence of past variations. Likewise, conﬁdence in stability was maximal at the onset of the ﬁnancial crisis in 2007. The turkey problem for humans is the result of mistaking one environment for another. Humans simultaneously inhabit two systems: the linear and the complex. The linear domain is characterized by its predictability and the low degree of interaction among its components, which allows the use of mathematical methods that make forecasts reliable. In complex systems, there is an absence of visible causal links between the elements, masking a high degree of interdependence and extremely low predictability. Nonlinear elements are also present, such as those commonly known, and generally misun- derstood, as “tipping points.” Imagine someone who keeps adding sand to a sand pile without any visible consequence, until suddenly the entire pile crumbles. It would be foolish to blame the collapse on the last grain of sand rather than the structure of the pile, but that is what people do consistently, and that is the policy error. U.S. President Barack Obama may blame an intelligence failure for the gov- ernment’s not foreseeing the revolution in Egypt (just as former U.S. President Jimmy Carter blamed an intelligence failure for his administration’s not fore- seeing the 1979 Islamic Revolution in Iran), but it is the suppressed risk in the statis- tical tails that matters—not the failure to see the last grain of sand. As a result of complicated interdependence and conta- gion eªects, in all man-made complex systems, a small number of possible events dominate, namely, Black Swans. Engineering, architecture, astronomy, most of physics, and much of common science are linear domains. The complex domain is the realm of the social world, epidemics, and economics. Crucially, the linear domain delivers mild variations without large shocks, whereas the complex domain delivers massive jumps and gaps. Complex systems are misunderstood, mostly because humans’ sophistication, obtained over the history of human knowl- edge in the linear domain, does not transfer properly to the complex domain. Humans can predict a solar eclipse and the trajectory of a space vessel, but not the stock market or Egyptian political events. All man-made complex systems have commonalities and even universalities. Sadly, deceptive calm (followed by Black Swan surprises) seems to be one of those properties. THE ERROR OF PREDICTION As with a crumbling sand pile, it would be foolish to attribute the collapse of a fragile bridge to the last truck that crossed it, and even more foolish to try to predict in advance which truck might bring it down. The system is responsible, not the compo- nents. But after the ﬁnancial crisis of 2007–8, many people thought that predict- ing the subprime meltdown would have helped. It would not have, since it was a symptom of the crisis, not its underlying cause. Likewise, Obama’s blaming “bad in- telligence” for his administration’s failure to predict the crisis in Egypt is symptomatic of both the misunderstanding of complex systems and the bad policies involved. Obama’s mistake illustrates the illusion of local causal chains—that is, confusing catalysts for causes and assuming that one can know which catalyst will produce which eªect. The ﬁnal episode of the upheaval in Egypt was unpredictable for all observers, especially those involved. As such, blam- ing the ciais as foolish as funding it to forecast such events. Governments are wasting billions of dollars on attempting to predict events that are produced by interdependent systems and are therefore not statistically understandable at the individual level. As Mark Abdollahian of Sentia Group, one of the contractors who sell predictive analytics to the U.S. government, noted regarding Egypt, policymakers should “think of this like Las Vegas. In blackjack, if you can do four percent better than the average, you’re making real money.” But the analogy is spurious. There is no “four percent better” on Egypt. This is not just money wasted but the construction of a false conﬁdence based on an erroneous focus. It is telling that the intelligence analysts made the same mistake as the risk-management systems that failed to predict the economic crisis—and oªered the exact same excuses when they failed. Political and economic “tail events” are unpredictable, and their probabilities are not scientiﬁcally measurable. No matter how many dollars are spent on research, predicting revolutions is not the same as counting cards; humans will never be able to turn politics into the tractable random- ness of blackjack. Most explanations being oªered for the current turmoil in the Middle East follow the “catalysts as causes” confusion. The riots in Tunisia and Egypt were initially attributed to rising commodity prices, not to stiﬂing and unpopular dictatorships. But Bahrain and Libya are countries with high gdps that can aªord to import grain and other commodities. Again, the focus is wrong even if the logic is comforting. It is the system and its fragility, not events, that must be studied—what physicists call “percolation theory,” in which the proper- ties of the terrain are studied rather than those of a single element of the terrain. When dealing with a system that is inherently unpredictable, what should be done? Diªerentiating between two types of countries is useful. In the ﬁrst, changes in government do not lead to meaningful diªerences in political outcomes (since political tensions are out in the open). In the second type, changes in govern- ment lead to both drastic and deeply unpredictable changes. Consider that Italy, with its much- maligned “cabinet instability,” is economi- cally and politically stable despite having had more than 60 governments since World War II (indeed, one may say Italy’s stability is because of these switches of government). Similarly, in spite of consis- tently bad press, Lebanon is a relatively safe bet in terms of how far governments can jump from equilibrium; in spite of all the noise, shifting alliances, and street protests, changes in government there tend to be comparatively mild. For exam- ple, a shift in the ruling coalition from Christian parties to Hezbollah is not such a consequential jump in terms of the country’s economic and political stability. Switching equilibrium, with control of the government changing from one party to another, in such systems acts as a shock absorber. Since a single party cannot have total and more than temporary control, the possibility of a large jump in the regime type is constrained. In contrast, consider Iran and Iraq. Mohammad Reza Shah Pahlavi and Sad- dam Hussein both constrained volatility by any means necessary. In Iran, when the shah was toppled, the shift of power to Ayatollah Ruhollah Khomeini was a huge, unforeseeable jump. After the fact, analysts could construct convincing accounts about how killing Iranian Communists, driving the left into exile, demobilizing the demo- cratic opposition, and driving all dissent into the mosque had made Khomeini’s rise inevitable. In Iraq, the United States removed the lid and was actually surprised to ﬁnd that the regime did not jump from hyperconstraint to something like France. But this was impossible to predict ahead of time due to the nature of the system itself. What can be said, however, is that the more constrained the volatility, the bigger the regime jump is likely to be. From the French Revolution to the triumph of the Bolsheviks, history is replete with such examples, and yet somehow humans remain unable to process what they mean. THE FEAR OF RANDOMNESS Humans fear randomness—a healthy ancestral trait inherited from a diªerent environment. Whereas in the past, which was a more linear world, this trait enhanced ﬁtness and increased chances of survival, it can have the reverse eªect in today’s complex world, making volatility take the shape of nasty Black Swans hiding behind deceptive periods of “great moderation.” This is not to say that any and all volatility should be embraced. Insurance should not be banned, for example. But alongside the “catalysts as causes” confusion sit two mental biases: the illusion of control and the action bias (the illusion that doing something is always better than doing nothing). This leads to the desire to impose man-made solutions. Greenspan’s actions were harmful, but it would have been hard to justify inaction in a democracy where the incentive is to always promise a better outcome than the other guy, regard- less of the actual, delayed cost. Variation is information. When there is no variation, there is no information. This explains the cia’s failure to predict the Egyptian revolution and, a generation before, the Iranian Revolution—in both cases, the revolutionaries themselves did not have a clear idea of their relative strength with respect to the regime they were hoping to topple. So rather than sub- sidize and praise as a “force for stability” every tin-pot potentate on the planet, the U.S. government should encourage countries to let information ﬂow upward through the transparency that comes with political agitation. It should not fear ﬂuc- tuations per se, since allowing them to be in the open, as Italy and Lebanon both show in diªerent ways, creates the stability of small jumps. As Seneca wrote in De clementia, “Repeated punishment, while it crushes the hatred of a few, stirs the hatred of all . . . just as trees that have been trimmed throw out again countless branches.” The imposition of peace through repeated punishment lies at the heart of many seemingly intractable conﬂicts, including the Israeli-Palestinian stalemate. Further- more, dealing with seemingly reliable high-level officials rather than the people themselves prevents any peace treaty signed from being robust. The Romans were wise enough to know that only a free man under Roman law could be trusted to engage in a contract; by extension, only a free people can be trusted to abide by a treaty. Treaties that are negotiated with the consent of a broad swath of the populations on both sides of a conﬂict tend to survive. Just as no central bank is powerful enough to dictate stability, no superpower can be powerful enough to guarantee solid peace alone. U.S. policy toward the Middle East has historically, and especially since 9/11, been unduly focused on the repression of any and all political ﬂuctuations in the name of preventing “Islamic fundamentalism”— a trope that Mubarak repeated until his last moments in power and that Libyan leader Muammar al-Qaddaﬁ continues to emphasize today, blaming Osama bin Laden for what has befallen him. This is wrong. The West and its autocratic Arab allies have strengthened Islamic funda- mentalists by forcing them underground, and even more so by killing them. As Jean-Jacques Rousseau put it, “A little bit of agitation gives motivation to the soul, and what really makes the species prosper is not peace so much as freedom.” With freedom comes some unpredictable ﬂuctuation. This is one of life’s packages: there is no freedom without noise—and no stability without volatility.∂

#### All risks of extinction events together is 0.2% per year

Simpson 16 – Fergus Simpson, Mathematician at the University of Barcelona. [Apocalypse Now? Reviving the Doomsday Argument, https://arxiv.org/abs/1611.03072]//BPS

Whether the fate of our species can be forecast from its past has been the topic of considerable controversy. One refutation of the so-called Doomsday Argument is based on the premise that we are more likely to exist in a universe containing a greater number of observers. Here we present a Bayesian reformulation of the Doomsday Argument which is immune to this effect. By marginalizing over the spatial configuration of observers, we find that any preference for a larger total number of observers has no impact on the inferred local number. Our results remain unchanged when we adopt either the Self-Indexing Assumption (SIA) or the Self-Sampling Assumption (SSA). Furthermore the median value of our posterior distribution is found to be in agreement with the frequentist forecast. Humanity's prognosis for the coming century is well approximated by a global catastrophic risk of 0.2% per year.

## 1NC – K

### 1NC – Humanism K – Short

#### By positing the governance structures of whiteness as the requirement for global security, the affirmative’s arms control policy sanctifies colonial violence premised on the human/nature binary and forecloses BIPOC futurisms by assimilating the Global South for neoliberal extraction

Mitchell and Chaudhury 20 [Audra Mitchell (she/her) is a settler scholar living on Haudenosaunee, Anishinaabe, and Attawandaron lands in what is currently called Canada. She holds the Canada Research Chair in Global Political Ecology at the Balsillie School of International Affairs. Aadita Chaudhury (she/her) is a settler PhD candidate in science and technology studies at York University, in Tkaronto (Toronto) in what is now Canada. “Worlding beyond ‘the’ ‘end’ of ‘the world’: white apocalyptic visions and BIPOC futurisms,” International Relations 2020, Vol. 34(3) 309–332, <https://doi.org/10.1177/0047117820948936>//lhs-ap]

Closely-linked to worries about the loss of potential ‘human progression’ is the fear of de-volution or back-sliding. In some cases, fears of demographic decline in ‘whitemajority’ regions (see above) extend to worries about the biological ‘extinction’ of white people. For instance, a recent report asserts that there has been 59.3% decline in total sperm count in men from North America, Europe, Australia, and New Zealand, but no comparable or significant decline in South America, Asia, and Africa, despite a paucity of studies in the latter regions (Ghosh 2017). While warning of a biological decline of whiteness, the articulation of these fears and the funding of research to address them undergirds a resurgence of whiteness formed in the perceived face of its destruction.54 Indeed, many contributors to ‘end of the world’ discourses offer strategies for the reconstruction and ‘improvement’ of existing power structures after a global catastrophe. For example, American settler economist Robin Hanson calculates that if 100 humans survived a global catastrophic disaster that killed all others, they could eventually move back through the ‘stages’ of ‘human’ development, returning to the ‘hunter-gatherer stage’ within 20,000years and then ‘progressing’ from there to a condition equivalent to contemporary society (defined in Euro-centric terms).55 Other authors focus on social, political, and economic forms of regeneration through simplification, which HomerDixon56 calls ‘catagenesis’. ‘Western civilization is not a lost cause’, he insists, ‘using reason and science to guide decisions, paired with extraordinary leadership and exceptional goodwill, human society can progress to higher and higher levels of well-being and development. . . But that requires resisting the very natural urge. . .to become less cooperative, less generous and less open to reason’ (italics ours).57 In this vision, Western civilization – which, is elided here with ‘human society’ – can salvage the future using some of its trademark claims: the possession of reason, science, and cooperativeness. However, this requires assimilating all human communities into a Western liberal-cosmopolitan mode of civility and suppressing forms of resistance that threaten to knock this goal off course. If ‘humanity’ is able to achieve this goal and develop a ‘prospective mind’ capable of seeing opportunity in destruction, Homer-Dixon argues it will be able to ‘turn breakdown to our advantage’58 (italics ours). Recalling that the ‘us’ in this discourse actively interpellates whiteness, this discourse frames global catastrophe as an opportunity to consolidate white structures of domination, assimilate resistors, and ultimately increase their power. Other authors who foresee post-apocalyptic movement toward a dazzling future (for whiteness) are clear about its costs. In his seminal book on human extinction, Canadian settler philosopher John Leslie states that ‘misery and death for billions [caused by an ecological crisis] would be immensely tragic, but might be followed by slow recovery and then a glittering future for a human race which had learned its lesson’.59 Similarly, Bostrom argues even the fractional reduction of threats to the possibility of posthuman, techno-infused subjectivities, by any means, would be worth ‘at least a hundred times the value of a million [contemporary] human lives’.60 Although rarely explicitly stated, it is not difficult to discern whose lives these authors believe might be sacrificed for the ‘greater good’ of ‘learning lessons’ and rescuing ‘humanity’ as they see it. This can be gleaned from these authors’ assessments of the ‘winners and losers’ of previous global upheavals. For example, in assessing the tumult of the twentieth century, Homer-Dixon states that Western capitalist societies were amongst the ‘most adaptive’ – and therefore closest to his ideal of the ‘prospective mind’ – while ‘at the other end of the spectrum, we find societies, including many in sub-Saharan Africa and some in Asia and Latin America, that have much lower ability to manage or adapt. . . a few, like Haiti and Somalia, have completely succumbed.’61 While this statement refers historical patterns, it is presented as part of an analysis that explicitly analyzes historical trends as indicators of future scenarios. As such, it inscribes ongoing racial inequalities and stereotypes far into the future. Despite these strategies for re-vitalization and post-apocalyptic resurgence, some white futurists express concerns about the ‘de-volution’ of ‘humanity’ from its perceived pinnacle in Euro-centric societies. For example, American settler economist Hanson describes the emergence of ‘humanity’ in terms of four ‘progressions’: from animals with enlarged brains to ‘hunter-gatherers’, then to agricultural societies and finally technology-driven industrial models. From his perspective, the ‘return’ to a ‘hunter-gatherer’ society would constitute the reversal of ‘human progress’.62 This scheme echoes a twentieth century scientific paradigm that holds that ‘humanity’, ‘human nature’, and liberal values emerged from the transcendence of hunter-gatherer brains and social structures.63 In this vein, Homer-Dixon (italics ours) states that without the emergence of modern petro-capitalism, ‘we would still be hunter-gatherers, surviving on grubs, roots and local game’,64 and that moving ‘back’ to this state would involve the crushing of ‘engineering marvels, political institutions and our culture and great art. . .into dust’ (italics ours).65 He and others, including Oreskes and Conway (2014) predict that this ‘reversal’ would also destroy democracy and liberal cosmopolitanism, producing highly-authoritarian forms of governance.66 In the face of this feared ‘de-volution’, some authors worry that ‘it is not even clear how much longer our descendants would remain distinctively “human”’.67 These accounts explicitly denigrate ‘hunter-gatherers’ – including many contemporary Indigenous societies – as ‘pre-human’, authoritarian and a degraded form of (pre-)humanity, while effacing the technological, political, and other forms of modernity and futurism embraced by BIPOC communities (see below). Following this logic, proposed efforts to safeguard ‘human’ achievements or ‘progress’ often focus on controlling, directly instrumentalizing or even eliminating BIPOC bodies. According to Bostrom and his colleagues,68 reducing existential risk would require invasive, assimilative forms of government, including the creation of a ‘singleton’ – a form of governance that encompasses the entire planet and beyond, and in which every aspect of existence is merged into a collective intelligence. Less ambitious strategies for securing an ‘improved’ future for whiteness involve intensive control, surveillance, and policing. According to Newitz (italics ours) ‘if we want our species to be around for another million years, . . . we must take control of the earth’ through geo-engineering, bio-engineering, or the colonization of other planets.69 In many cases, these strategies involve the intensification of control over BIPOC bodies, relationships, and ways of life. Homer-Dixon (italics ours), outlines an ‘aggressively proactive’ strategy that includes, amongst other measures, family planning in countries that ‘still have high fertility rates’; conservation of ‘resources’, transitions to cleaner energy globally, post-conflict reconstruction,70 efforts to boost resilience of governments in ‘poor’ countries to reduce the ‘spillover’ of immigrants and disease; and targeted efforts to destroy ‘extremist groups’.71 Barnosky and Hadley also focus on education, particularly of girls, in BIPOC-majority places – including the use of explicitly colonial educational traditions, as in Mauritius – as a means of suppressing birth rates. They argue that it may be necessary to devote 50% of earth’s land to feed a growing ‘human’ population, including ‘switching from traditional crops to high-yield crops’ and ‘consolidating small farms into large, mainly monocultural operations, including the use of genetically modified organisms’.72 In so doing, they influential American settler conservationist E.O. Wilson’s (2016) proposal to annex 50% of earth’s surface as ‘inviolable nature reserves’ governed by the norms of Western conservation.73 These plans for ‘saving humanity’ and the planet involve the re-enactment and innovation of key techniques used by European colonizers to annex land, displace communities and undermine the sovereignty of BIPOC peoples across the planet. Similarly, Weisman considers possible strategies of social control designed to reverse-engineer ‘liveable’ conditions. To this end, he defines ‘the optimum population as the number of humans who can enjoy a standard of living that the majority of us would find acceptable. . .roughly equivalent to a European level, pre-[2008 financial]crisis’.74 Drawing on work by Gretchen Daily, Paul and Anne Ehrlich, Weisman’s ideal future would involve ‘guaranteed sustenance’, ‘shelter’, ‘education’, ‘healthcare’, ‘freedom from prejudice’, and ‘opportunities to earn a living’. Such a ‘humanitarian’ society, he avers, could ‘maintain human cultural diversity and in places dense enough to allow a critical mass of intellectual, artistic and technological creativity’, along with ‘exciting cities’ and ‘wilderness’, both of which reflect Euro-centric notions of ‘culture’ and ‘nature’. Yet this future society, in which pre-2008 Europeans are explicitly framed as the baseline for ‘liveable’ lives, would not countenance ‘pastoral, preindustrial existence’,75 which is framed as a step back. Nor would it aspire to ending inequality, which is dismissed as unrealistic – or, more to the point, not a priority when the survival of ‘humanity’ is considered to be at stake. So, while Weisman’s vision allows for a minor reversal (to a time perceived as a high-water mark for Euro-American societies), it confirms other lifeways as ‘unliveable’ or not ‘humanitarian’, and does not consider the transcendence of global inequalities essential to a thriving future. To achieve such ideal futures, many writers in the ‘end of the world’ genre treat BIPOC as instruments or objects of sacrifice. In a stunning display of white possessive logic,76 Hanson suggests that, in the face of global crisis, it ‘might make sense to stock a refuge with real hunter-gatherers and subsistence farmers, together with the tools they find useful. Of course, such people would need to be disciplined enough to wait peacefully in the refuge until the time to emerge was right.77 In this imaginary, Hanson quite literally suggests the (re-/continuing)imprisonment, (re-/continuing)enslavement and biopolitical (re-/continuing)instrumentalization of living BIPOC in order to enable the future re-generation of whiteness. This echoes the dystopian nightmare world described in Métis author Cherie Dimaline’s The Marrow Thieves, 78 in which the bone marrow of Indigenous peoples is brutally and systematically harvested to enable climate-change-wracked settlers to dream in order to imagine futures. However, this form of instrumentalization is not only found in the realm of speculative fiction: Potawotami scholar Kyle Powys White details how white environmentalists and policy-makers regularly instrumentalize Indigenous communities, their knowledges and systems of governance to develop policies intended to protect dominant societies from climate change. In such cases, Whyte contends, Indigenous communities are reduced to the role of the ‘last remaining Holocene survivors’ whose continued existence is justified largely by their ability to teach white people ‘how the rest of humanity can save itself’.79 Like the narratives discussed above, in which communities declared as ‘extinct’ are mined for insights into the future of Western societies, such narratives work to propel the ‘forward’ movement of whiteness by pushing BIPOC societies into ‘the past’. Some narratives enact this dynamic by imagining the total destruction of BIPOC-dominant societies. For instance, Oreskes and Conway’s counterfactual imagines the survivors of global climate change as those living in the ‘northern inland regions of Europe, Asia and North America, and high-altitude parts of Latin America’, who are able to ‘regroup and rebuild’. However, they project, ‘the human populations of Australia and Africa, of course, were wiped out’ (italics ours).80 Although this vision may appear (at least to white readers) to espouse concern for the BIPOC peoples of Australia and Africa, they also reflect the ease with which the total elimination of these peoples is assumed and imagined as a matter ‘of course’ by these authors, reflecting and shaping the expectations of readers. In popular discourses such as mainstream science fiction, this dynamic is often portrayed as a zerosum struggle between white and BIPOC communities. For instance, the highly popular genre of zombie films and even IR texts81 appropriate these creatures, representatives of Black and Brown bodies and rebellion against slavery, while envisioning their elimination as a means of ensuring survival.82 Similarly, influential American settler science fiction writer Robert A. Heinlein’s The Day After Tomorrow locates threats to whiteness in the bodies of ‘Pan-Asians’ who have colonized white places and must be violently eradicated.83 White readers might argue that these forms of science fiction are just that: fictive fantasies. However, since science fiction regularly influences not only public imaginaries but also public policy, including the development of US military applications and strategy,84 IR scholars should take its visions seriously.

#### Arms control is both instrumental, the thought that arms are tools used by dangerous makers, and substantive, the thought that tools exceed reasonable human control. That necessitates both the subjugation of the world to the enlightenment reason of western man and incremental short-termism which trades off with broader transformative action.

Bourne 18 [Mike Bourne, Reader in the School of History, Anthropology, Philosophy and Politics @ Queen’s University – Belfast, 2018, "Cyborgs, control and transformation," Taylor &amp; Francis, https://www.taylorfrancis.com/chapters/edit/10.4324/9781315613475-13/cyborgs-control-transformation-mike-bourne, accessed 4-16-2021]LHSBC

In arms control thought, security studies, and indeed most western modern political thought, the engagement of separate political and technological realms is characterised by two particular perspectives that assert a deterministic relationship between social/political relations and technology: ‘instrumental’ and ‘substantive’ views of technology (Feenberg 1991; Peoples 2007; Wyn Jones 1999). Instrumental views of technology predominate in western political and social thought and view technology as merely a neutral tool, ‘subservient to values established in other social spheres i.e. politics and culture’ (Wyn Jones 1999: 85). The US National Rifle Association (NRA) slogan that ‘It’s not the gun, it’s the person holding the gun’ that kills espouses an archetypal instrumentalism which views technologies (indeed all material things) as having no significant bearing on the ends to which they are put. For Feenberg (1991) instrumentalism also assumes that technologies are fully objective and thus are universal, such that what they achieve in one place can be achieved in others (Feenberg 1991). Such technological instrumentalism is a common feature of otherwise opposed schools of thought in international security studies ranging from realism, liberalism, constructivism, and critical security studies (Bourne 2012). ‘Substantive’ views, in contrast, portray technology as determining social and political relations in spite of the intentions of human actors. Often cast in pessimistic terms, as in Ellul (2010) or Heidegger (1977), Feenberg argues that substantive views often claim to seek to ‘defend “humanity” against machines’ (1991: 2). In security studies, however, substantivism is present in both optimistic and pessimistic claims. Kenneth Waltz’s famous argument that possession of even a small number of nuclear weapons induces stable deterrence and restraint in the use of force (Waltz and Sagan 2002) is clearly substantivist; but so too are claims that some types of weapons are inherently inhumane by virtue of being indiscriminate (a claim made to underlie prohibitions on biological and chemical weapons and anti-personnel landmines and cluster munitions). Much of the academic debate and political practice of engaging the relations between weapons and security operate on the basis of instrumental or substantive arguments. Importantly, in some areas both are invoked together: thus, Peoples (2007) argues that those using substantivist accounts of nuclear weapons proliferation often invoke instrumental accounts of missile defences. Such arguments are able to co-articulate seemingly contradictory positions as both perspectives rest on the same foundations of a clear separation of technology and politics that are then related (Bourne 2012; Peoples 2007). The separation of technology and society/politics in either deterministic mode is foundational to much International Relations and security theory that relies upon a ‘Cartesian dualism’ of ideas and matter (Pouliot 2010; Wendt 2007). This holds in place the contest between realism and other rationalist theories that claim a materialism that is in fact highly attenuated, viewing material factors like weapons as mere resources; and critical and constructivist scholarship that emphasise the priority of anthropocentric notions of inter-subjectivity. Beyond particular arguments about particular weapons, the development of arms control theory can also be seen as a shifting assemblage of instrumentalism and substantivism. The distancing of arms control from disarmament can be read as an assertion of instrumentalism against substantivism (Bourne 2012). This is further emphasised in realist characterisations of international security politics as characterised by unchanging anarchy that casts arms management as an instrumental technique for managing the security dilemma among rational individualised states seeking autonomy and the preservation of flexibility (Steiner 2010). This, of course, leaves arms control open to outright rejection, as articulated in Colin Gray’s assertion of the Cartesian distinction: ‘Peace and war are political; they are not technological or administrative via apolitical and astrategic theories of arms control and stability’ (1992: 68). Instrumentalism, then, distances weapons from politics and sees both not only as separate but as fixed. Yet ghosts of substantivism re-emerge in the portrayal of technological development as an autonomous sphere. Here, though, substantivism reinforces the managerial emphasis of arms control. The assumption that technological development occurs autonomously and more rapidly than regulatory frameworks can anticipate has been emphasised since the early days of arms control theory to present concerns with the revolutions in bio-technology for the Biological and Toxin Weapons Convention (BTWC) or the emerging militarisation of nano-technology (Altmann 2006; Kahn 1960; Wheelis and Dando 2000; Whitman 2007). When viewed as relatively autonomous, the process of technological change generates significant uncertainties about future military capabilities which, combined with anarchy and security dilemma uncertainties, are believed to place pressure on states to favour short-term, self-help measures in arms control (Farrell 2007). In much arms control theory, both instrumentalism and substantivism have served to limit its prospects and the expectations of what it can achieve. But, accounts that see greater potential for arms control in transforming global security practice also replay the Cartesian divide with constructivist and many critical scholars emphasising ideational shifts constructed inter-subjectively explaining both particular taboos on particular weapons (Adler 1997; Price 1997; Tannenwald 2007). Here the weapon itself is – largely – mute and inert, and arms control operates first in the purely social inter-subjective world of human agents that attach meanings to these objects. Here, then, arms control is a realm of social inter-action and ideas, and the critical task is to combat ‘nuclear reason’ or ‘nuclearism’ (Booth 1999; Burke 2009), to work to delegitimise nuclear weapons (Berry et al. 2010), or to shift arms control practices towards humanitarian ends (Garcia 2014). Here instrumentalism may also be seen not as an assumption of arms control, but its goal. This is most notable in relation to controls over ‘pariah weapons’ that have no place in ‘civilized warfare’ (Cooper 2006). Prohibitions and disarmament commitments for ‘indiscriminate’ or ‘inhumane’ weapons reflect the self-identification of the West as civilised military powers engaged in the civilising of warfare (Krause and Latham 1998; Cooper 2006). Arms control, then, is an ‘enlightenment’ project to master politically science and technology’s mastery over nature (Walker 2007). Here control is not just a means of stabilisation of international order but a larger project inherited from the Clausewitzean dream of the subjugation of violence to reason; the realisation of ‘real war’ within an often liberal mode of civilising. The greatest enemy here, then, is indiscriminate killing, not killing per se. The practice of arms control also arises from a dualistic politics. The dominant technique of arms control is an incremental process that operates by parsing issues into constituent technical problems amenable to manipulation by experts (Borrie 2005). Krause and Latham identify a ‘Non-proliferation, arms control and disarmament culture’ that draws upon a particular western ‘manipulative approach to negotiation and a commitment to a step-by-step process that was in some sense supposed to be “technical” or “apolitical” ’. This derives not merely from the temporal limits on certainty produced by autonomous technology but also a modernist dream of the rationalisation of violence premised on: a belief, common to very few cultures, that ‘man can freely manipulate his environment for his own purposes . . . set his objective, develop a plan designed to reach that objective, and then act to change the environment in accordance with that plan’. (1998: 28) This dominant instrumentalism does not resolve the tension between instrumentalism and substantivism. Rather, as Brian Rappert (2006) argues, in control regimes where one perspective is dominant, the other is frequently used to critique and present alternative programmes of action. What emerges are three different types of settlement (rather than an agreed solution) that specify a location for the origin of the problem of armed violence. First, danger may be inherent in the weapon itself (such as arguments that some weapons are inherently indiscriminate); second, it may reside in the (type of) actor in possession of the weapon; or third, in the particular context in which weapons and actors find themselves. This settlement distributes global political action in particular ways, and each is a combination of substantivism and instrumentalism. The first, predominantly substantivist, location of harm arising from the weapon itself tends to lead towards not just strong prohibitions, but strong international management, albeit with varying degrees of institutionalisation. Thus biological and chemical weapons are banned on substantivist grounds that they cause indiscriminate harm, and the ban is rendered operable through instrumentalist management of dual use goods and exceptions (for example, stocks of biological agents retained for scientific and prophylactic purposes) (Rappert 2006).The second, hybrid form, locating danger in particular types of actors, underlies considerable hypocrisy – such as the central bargain of the 1968 Nuclear Non-Proliferation Treaty that legitimates the long temporary retention and build-up of the P5’s nuclear arms. Recent hopes for moves towards ‘nuclear zero’ and the revitalisation of disarmament discussions at NPT Review Conferences somewhat challenge this, but do so on the basis of concerns about ‘rogue states’ and ‘terrorist’ groups acquiring nuclear (or biological and chemical) weapons. In contrast, those instrumentalist characterisations that portray harm as related to particular contexts tend to be managed through national systems of control over the transfer of weapons and technologies, within the context of varying degrees of multilateral supplier cooperation. This is particularly the case in relation to conventional arms that are largely conceived of in instrumental narratives with particular recipients or contexts of concern. Even the recently agreed global Arms Trade Treaty merely locates controls in the application of a range of transfer control criteria within national systems of decision-making that operate on risk-based assessments pertaining to the contexts and character of recipient actors. The exception lies in substantivist narratives of inherently indiscriminate conventional arms like antipersonnel landmines and cluster munitions. Overall, therefore, arms control politics and theory has shifted, but it is consistently operative on a terrain constituted by Cartesian dualism. Instrumentalism and substantivism are ultimately deterministic accounts of the relations between preconstituted and separated realms of the social/political and the technological. That the two are continually in tension is formative of a deeply asymmetric set of arms control practices. There is a particular anthropocentrism in both arguments. In instrumental accounts, technologies merely do what they are told; it is the intentions of human actors that matter, whether encountered through instrumentally rational unitary states acting upon material interests, as in realism, or through ideas and norms whose production is largely confined to separate ideational realms, as in much constructivism and some critical security studies. Likewise, in much conventional weapons politics it is the intentions of states that matters, and in humanitarian arms control focussed on pariah weapons (landmines, cluster munitions, and so on) it is humanity that is to be protected from the ability of some weapons to exceed intentions. Thus, it is not just that the various arguments and strategies that have constituted arms control have tended to replay a deeper Cartesian dualism of ontological zones connected deterministically, but that this divide itself is grounded in anthropocentrism.

#### A ban on autonomous weapons constructs a false dichotomy between the human and non-human that obscures how the symbiosis between human and technology enacts violence – that forecloses relational connections with the non-human which turns case by preventing effective regulation. Reject the aff in favor of a post-humanist analysis understands autonomous systems as an extension of colonial militarism

Jones 18 [Emily Jones, Lecturer in Law at the University of Essex, “A Posthuman-Xenofeminist Analysis of the Discourse on Autonomous Weapons Systems and Other Killing Machines,” Australian Feminist Law Journal, Volume 44, 2018 - Issue 1, <https://doi.org/10.1080/13200968.2018.1465333//lhs-ap>]

While there is a need to ensure that IHL is upheld and that robots do not kill, it is also clear that this ethical dilemma does not just apply to autonomous weapons. While the organisations mentioned above clearly have at least some form anti-militarism as a core aim, 121 the temporal horizon of such NGOs remains limited. NGOs largely maintain a strict humanist stance, focusing on the realm of international law and the need to promote and protect existing legal frameworks such as IHL which situate the human at the centre of the paradigm. Whilst this has historically produced many great achievements, such a humanist stance cannot be applied given the rapid pace at which technology is now developing. AI may not only pose a threat to the lives of humans where designed, purposefully, to kill, but may also pose a threat to life in and of itself, as it exists. There is a need for all groups who are working to promote ethical technologies to consider not only what may seem attainable now, but what is feasibly attainable in the future, noting the ways in which the now can be used to construct the future.∂ NGOs continue to situate the human as the centre of their paradigm, seeing the machine as the ‘other’ to the human. This can be seen in the way in which autonomy is discussed in relation to the human who is imagined as either in/on/out of the loop, which does not account for the ways in which humans and machines work in connection.122 Posthumanism, on the other hand, challenges the centrality of the human within Western thinking, working to rethink the human/machine binary. Feminist posthumanism notes that something else is needed; a new way of defining subjectivity which sees the complexities and interconnections between humans and others: nature, technology, animals, etc., rejecting the human as the central paradigm and noting how the human is located instead ‘in the flow of relations with multiple others’.123 The humanist discourse around autonomous weapons ignores the posthuman reality that humans and machines are already working in connection with one another. Life/death decisions are already being made by human-machine combinations, as the next section illustrates. Banning autonomous weapons is not enough: there is a need to consider the ways in which machines are already making these decisions and to create ethical frameworks for these and future technologies, rebutting the false exceptionalisation which surrounds the current discourse on autonomous weapons.∂ 4.2Machine-Human Life/Death Decision Making∂ As Jasanoff notes, technology is based around a set of decisions.124 Jasanoff observes that we often do not question these decisions until there is an accident – at which point we find who made the mistake.125 However, she argues that people ‘have spent a great deal more energy thinking about how to make good laws than about how to design good technological objects’. 126 Yet, she continues, ‘in democratic societies, uncontrolled delegation of power is seen as a basic threat to freedom’.127 We must ‘understand how power is delegated to technological systems’.128∂ The need to understand how power and decision-making are delegated to technology is ever more urgent in the realm of life/death decision-making. However, as noted, the humanist discourse on autonomous weapons fails to account for the ways in which humans and machines are already working together to make life/death decisions. The most obvious example is the use of programming and algorithms in drone warfare. While many drone strikes are conducted as ‘personality strikes’ – i.e. strikes on a particular, key, well-known person – these occur only a few times a year, with ‘signature strikes’ happening a few times a week.129 These attacks are conducted on the basis of a ‘pattern of life’ analysis. ‘Pattern of life’ analysis develops a profile of an individual or a network of individuals by drawing on all the intelligence available, which includes things like drone and other aerial surveillance intelligence, communications interceptions, as well as phone tapping information and GPS tracking information.130 What becomes clear in ‘drone warfare’, therefore, is that the drone itself is only one part of a broader system which includes big data, algorithms, intelligence collection, chains of command, and bureaucratic formations, among other technologies and practices. 131 This data is then often combined with individual tracking through the use of mobile phone and GPS tracking systems in order to both watch movements as well as to target individuals.132 The gathering of this information builds up to create a file of information collected by machines which, as Chamayou has noted ‘once it becomes thick enough, will constitute a death warrant’.133 This is an example of part-machine life/death decision-making. Part of the decision-making process here is already done by machines which gather this data and predict the likelihood of an individual’s involvement with terrorist organisations. While the human is clearly involved, in that they then must note the results of the data collected, deem it enough to act upon and then operate the drone to kill the subject in question, the machine and the human are making life/death decisions together. It is also worth nothing, as Wilcox has shown, the ways in which this data is often interpreted in racialised and gendered ways. 134∂ Such processes of human-machine life/death decision-making would not be covered under a ban of autonomous weapons. It thus seems that part of the problem with the debate around autonomous weapons is the debate around autonomy itself. By trying to define autonomy instead of working to understand automation and autonomy as in continuum, international debates on autonomous weapons other the machine from the human, creating a false paradigm. Such a limited account of autonomy works to set the standard so high for machine decision-making that, in the end, almost nothing may be covered under a ban. In the meantime, machines are already making of life/death decisions alongside humans. Machine involvement in such decision-making processes is only set to increase, as the next section will illustrate.∂ 4.3 Cyborg Super Soldiers∂ As Vinge states, ‘in humans, the hardest development problems have already been solved. Building up from within ourselves ought to be easier than figuring out first what we really are and then building machine that are all of that [as per AI]’. 135 While beyond human intelligence is often discussed in reference to AI, this is only one model. In fact, superintelligence and the singularity following it is likely to occur through what Vinge defines as Intelligence Amplification (IA). IA may include, for example, large computer networks waking up and becoming superhumanly intelligent or ‘computer/human interfaces may become so intimate that users may reasonably be considered superhumanly intelligent’.136 These two examples are different to AI as they either come from ‘upgrading’ the human or from the computer finding its own intelligence rather than coming from a specially created machine.∂ Given current trends and advancements in both wearable military technologies and human enhancement technologies, in contrast to the vast technological problems in creating a humanoid killer robot, the future of autonomous weapons may lie more in the enhancement of human soldiers than in the machinic ‘other’. Superhuman soldiers, however, would not be covered under the kinds of legal bans being proposed. Of course, such a soldier would not necessarily be called a weapon and would pose a different set of legal and ethical questions considering that the entity would remain human to some extent, possibly retaining human choice capacity and empathy.137 However, it is also unclear at what point a technologically enhanced human may be deemed to be more machine than human. For example, as noted above, emotions in military contexts are often deemed to be a weakness by many who then use this argument to justify autonomous weapons.138 Following this line of argument, it is feasible to consider that attempts may be made to make superhuman soldiers emotionless to make them more efficient. It is at this point – where some parts of the soldier’s humanity may be lost – that the ethics of autonomous weapons may begin to apply directly to cyborg soldiers. Superhuman soldiers thus exemplify the false binaries between autonomy and automation and the human and the machine in that they will likely embody all these things at once in a very direct way.∂ Recent trends in military technologies exemplify the trend towards creating enhanced human cyborg super-soldiers. Wearable military technologies are being developed to make human soldiers more efficient, as with exoskeletons. Designed to make soldiers stronger and to help disabled soldiers get back to work, the development and use of exoskeletons is one step towards the creation of super-soldiers.139 Many of these wearable military technologies are being used not only to increase strength but to make life/death decision making more efficient. An example of such a technology can be seen in the Boomerang gunfire location system. Boomerang pinpoints the exact location of incoming small arms fire using acoustic detection and sophisticated algorithms. This information is then related directly to the soldier who can choose whether to fire or not. 140 Initially mounted onto trucks, there is now also a soldier wearable system called the Boomerang Warrior-X. While the system still requires a soldier to use the information given to choose whether to fire, these examples not only show the ways in which the human-machine are already working together to make life/death decisions, but also highlight the trend in working to create a new breed of super-soldier. If one merges the data collection and profiling used in drone warfare and gives this to a soldier in an exoskeleton using a system such as Boomerang Warrior-X, an early form of superhuman soldier can already be seen to be emerging.∂ While human enhancement technology is rather limited at this point, it is developing. One clear example of a research project which could contribute to the creation of superhuman soldiers can be seen in HRL's Information & System Sciences Laboratory’s transcranial direct current stimulation project.141 The researchers in this project ‘measured the brain activity patterns of six commercial and military pilots and the transmitted these patterns into novice subjects as they learned to pilot an airplane in a realistic flight stimulator’. 142 The study found that ‘subjects who received brain stimulation via electrode-embedded head caps improved their piloting abilities’.143 This demonstrates a possible way to decrease the time it takes to learn complex skills, given that ‘commercial and military pilot training programs [already] now utilize flight simulation extensively for training basic flight and combat skills’.144 As the researchers on the project note, such a study could have massive ‘benefits for commercial and military applications’.145 This exemplifies a further way in which technology is being developed in various contexts with the idea of creating superhuman soldiers.∂ Given current trends in wearable military technologies and the large investment in human enhancement technologies globally, as opposed to the vast technological problems in creating a humanoid killer robot,146 the future of autonomous weapons may not be solely machinic at all; rather, they are likely to take the form of a cyborg soldier. Discussions on autonomous weapons, however, continue to assert autonomous systems as the machinic ‘other’. Such definitions which define these technologies before they exist may drastically limit the impact of any legal regulation despite the clear ethical and legal issues which arise from the possibility of any form of autonomous killer technology. It is clear that a feminist posthuman approach is needed on such technologies to ensure that the full range of technologies which may kill may be captured through legal regulation.∂ 5.0Conclusions∂ Despite current trends in military technologies and the ways in which machines are already helping to make life/death decisions, neither algorithmic ‘independence’, nor AI which decides to kill, nor any type of superhuman soldier would be covered under a pre-emptive ban of autonomous weapons. On the other hand, a posthuman approach to autonomous weapons would recognise the connections between the human and the machine. Such an approach would not fixate on autonomy but would instead work to break down the false dichotomies between autonomy-automation and human-machine, instead focusing on the ethical implications of killer systems across these lines. 147 As noted above, whilst xenofeminism and posthuman feminism understand the dangers as well as the potentials of technology, xenofeminism in particular does not account for the power of militarism and the militarism-capitalism assemblage. It seems, therefore, that the risks of the technologymilitarism-capitalism assemblage need to be further read into xenofeminism to ensure that it stays true to its own aims of using and appropriating technology to construct an intersectional feminist future.

#### The assumption of linear progress valorizes whiteness and the destruction of indigenous relationalities to land

Mitchell and Chaudhury 20 [Audra Mitchell (she/her) is a settler scholar living on Haudenosaunee, Anishinaabe, and Attawandaron lands in what is currently called Canada. She holds the Canada Research Chair in Global Political Ecology at the Balsillie School of International Affairs. Aadita Chaudhury (she/her) is a settler PhD candidate in science and technology studies at York University, in Tkaronto (Toronto) in what is now Canada. “Worlding beyond ‘the’ ‘end’ of ‘the world’: white apocalyptic visions and BIPOC futurisms,” International Relations 2020, Vol. 34(3) 309–332, <https://doi.org/10.1177/0047117820948936//lhs-ap>]

One of the hallmarks of emerging ‘end of the world’ discourses is profound anxiety about disruptions to – or reversals of – the linear concept of time that underpins European postEnlightenment sciences. At stake, these discourses claim, is the ‘progress’ of humans and other life forms toward greater complexity and perfection. Frequently, lifestyles, forms of governance, conditions and structures associated with whiteness are presented as the current pinnacle of this movement under threat by global crises. For example, in The Collapse of Western Civilization: A View from the Future, in which they assess the global effects of climate change, American settler scholars Naomi Oreskes and Eric Conway issue ‘a call to protect the American way of life before it's too late’ (italics ours).46 Similarly, in the context of global population dynamics, Weisman47 worries about the collapse of modern Western urban infrastructure and the loss of a ‘European standard of living’. Similarly, Barnosky and Hadley reminisce about recreational family trips to ‘Africa’ to see ‘the last remnants of big game’.48 These texts express profound anxiety over the loss of what Quandamooka scholar Aileen Moreton-Robinson calls white possessions, including empire, territory, and the biological and cultural capital of whiteness.49 They also enact a form of pre-emptive possessive mourning50 which frames particular animals and geographical features as the birthright of Western children. In addition, many authors working in this genre worry about the interruption of the perceived stadial progression of ‘humanity’, a narrative that celebrates the emergence of whiteness through the elimination of ‘inferior’ races or cultures.51 For example, Canadian settler scholar Elizabeth Finneron-Burns (italics ours) warns that the extinction of ‘humanity’, which she associates with ‘rational life’, ‘knowledge’ and ‘civilization’ (terms all deeply linked to Euro-centric and colonial subjectivities) would be ethically wrong ‘if the advances made by humans over the past few millennia were lost or prevented from progressing’.52 In this vein, Bostrom idealizes a future in which the continued evolution of ‘(post)humanity’ culminates in a form of ‘technological maturity’ that adheres to mainstream norms of white maleness: deeply disembodied, unattached to place, and dominant over, or independent from, ‘nature’.53

# 2NR

## Link

### Jones – General

#### The affirmative defines LAWS as an irrational other in opposition to a more rational human – This IS their argument that artificial intelligence will violate human dignity absent a more rational human to manage them to make sure they don’t make mistakes and escalate to war – That was the jones ev

#### Multiple impacts –

#### 1 – Humanism – Through valorization of the category of human over all else, colonial powers continually entrench dehumanization by writing off genocidal violence as happening to inhuman objects. It’s the way that enlightenment thought greenlighted native extermination because natives weren’t seen as human and rather savages – that was the Mitchell and Chaudhary ev

#### 2 – Sanitizes violence and turns case – greenlights present and future destabilizing conflicts post-plan because those forms of warfare are seen as ethical and acceptable because they occur under the guise of human control

#### 3 – Circumvention –

#### A – Making distinctions around autonomy misses the boat because it tries to define autonomy in such a narrow and technical way that ultimately means it covers nothing

#### B – Jones says recent advancements in tech make cyborgs the new future of warfare – humans who are enhanced through exo-skeletons and genetic modification would be human under the aff and not covered which would still cause destabilizing conflict

###  Jones – Nuclear Laws

#### The affirmatives valorization of an ounce of human decision-making only reifies the category of the human – AI still exists in nuclear communcations and early warning systems post plan – the affirmative just wants humans to maintain control of deciding who lives and dies

#### Multiple impacts –

#### 1 – Humanism – Through valorization of the category of human over all else, colonial powers continually entrench dehumanization by writing off genocidal violence as happening to inhuman objects. It’s the way that enlightenment thought greenlighted native extermination because natives were savages, not human – that was the Mitchell and Chaudhary ev

#### 2 – Turns case – human control bad – they’ve endorsed a status quo where the world constantly teeters on the brink of annihilation – all it takes is one john bolton to take control of the button

#### 3 – Turns case – limited and nebulous definitions of autonomy that try to distinguish human control from AI control ignores the ways that technology is always influenced by humans from programming to data collection to repairs to the bureacracy of the defense industrial base which means they can never solve the root cause of militarism and instability – independently allows for cyborgs, super soldiers, and semi-autonomous drones which circumvent the ban surveil and control racialized populations because they possess “meaningful human control”

#### 4 – Sanitizes violence and turns case – greenlights present and future destabilizing conflicts as long as they occur under the guise of meaningful human control

### Bourne

#### The aff’s arms control policy is humanist and thus problematic – that’s the bourne ev

#### 1 – It’s instrumental – They believe that the world is malleable and must be shaped according to their will through management is the same logic that colonizers used to shape lives and land of Natives according to their will

#### 2 – It’s substantive – They believe that weapons themselves are the issue because they are uncontrollable – that’s problematic because it frames anything that doesn’t conform to the control, to the reason, to the rationality of western man as something that must be subjugated

#### Multiple impacts –

#### 1 – Colonialism – that was above – Through valorization of the category of human over all else, colonial powers continually entrench dehumanization by writing off genocidal violence as happening to inhuman objects. It’s the way that enlightenment thought greenlighted native extermination because natives were savages, not human – that was the Mitchell and Chaudhary ev

#### 2 – Turns case – there’s a tradeoff argument – incremental actions like the aff encourage short term reforms of the system which saps focus and energy from the movements necessary for broader structural change necessary to dismantle the military industrial complex

#### 3 – Root cause – war is not a function of technology but rather a function of politics – nations go to war because of nationalism, xenophobia, militarist cultures etc. – the ban of the aff does nothing because the military industrial complex will turn out different tools of war

## Impact

### Extinction outweighs

#### 1 – Epistemology – Whiteness inflates body counts and falsely portrays itself as the only solution to existential threats – That’s Mitchell and Chaudhury – Instead you should treat our impacts as infinite – Only this overcorrection can generate a more ethical subjectivity oriented towards the land

#### 2 – Use Pascal’s wager to frame out all their extinction arguments – wouldn’t give a random person a 20-dollar bill just because they threatened to blow up the earth which proves miniscule risk shouldn’t outweigh

#### 3 – Probability times magnitude collapses in on itself because the impact of extinction is infinite which means impact of everything is infinite

#### [4 – Timeframe – their tech isn’t here now – vote neg to live another day in the hope that future intervening actors can solve]

#### We can’t make linear decisions – IR is incredibly volatile and black swan events can pop up at anytime – the larger the magnitude the lower the probability – we couldn’t predict the most influential events of the 21st century like 9/11, 2008 economic crash, 2015 migration crisis in Europe, election of trump, and covid-19

#### Util and saying existential risks always outweighs actively creates unethical subjects – empirical social science studies prove it only primes people to be self-interested and act antithetical to the greater good

#### Best data science studies estimate chance of extinction at .2% every year which you can round down to zero – [their tech is decades in the future which means assign even higher skepticism to their claims]

### Lester

#### 1 – The root cause of the colonial interventions this evidence criticizes is the enlightenment thought of intellectual superiority that required conquering and pacifying natives

#### 2 – The aff isn’t radical humanism - they say that humans, i.e. the white foreign policy elite, should be able to determine who lives and dies – obviously distinct from invoking universalist humanism to protect natives

#### 3 – no link – we think there is commonality between humans but we don’t think that commonality should end at simply all humans

#### 4 – this card’s indict of post-humanism is that it results in social darwinism - obviously not the alt

#### 5 – Their evidence quite literally says British colonization, indigenous extermination, and cultural genocide was premised on humanist universalism – read yellow

Lester 12, Alan. "Humanism, race and the colonial frontier." Transactions of the Institute of British Geographers 37.1 (2012): 132-148. (Director of Interdisciplinary Research, Professor of Historical Geography, and Co-Director of the Colonial and Postcolonial Studies Network, University of Sussex)//Elmer

Conclusion: defending humanism? Although, as I have argued, both Anderson and I emphasize in practice those sets of relations on colonial frontiers that gave rise to racial discursive shifts in the nineteenth century, there are important between the different kind of discursive relations postcolonial questions hinging on the distinction that Anderson emphasizes, and those that I have tried to track above. Anderson argues that it is not an issue of extending humanity to … negatively racialised people, but of putting into question that from which such people have been excluded – that which, for liberal discourse, remains unproblematized. (2007, 199) I fear, however, that if we direct attention away from histories of humanism’s failure to deal with difference and to render that difference compatible with its fundamental universalism, and if we overlook its proponents’ failed attempts to combat dispossession, murder and oppression; if our history of race is instead understood through a critique of humanity’s conceptual separation from nature, we dilute the political potency of universalism. Historically, it was not humanism that gave rise to racial innatism, it was the specifically anti-humanist politics of settlers forging new social assemblages through **relations of violence on colonial frontiers**. Settler communities became established social assemblages in their own right specifically **through the rejection of humanist interventions**. Perhaps, as Edward Said suggested, we can learn from the implementation of humanist universalism in practice, and insist on **its potential to combat racism**, and perhaps we can insist on the contemporary conceptual hybridisation of human–non-human entities too, without necessarily abandoning all the precepts of **humanism** (Said 2004; Todorov 2002). We do not necessarily need to accord a specific value to the human, separate from and above nature, in order to make a moral and political case for a fundamental human universalism that can be wielded strategically against racial violence. Nineteenth century humanitarians’ universalism was fundamentally conditioned by their belief that British culture stood at the apex of a hierarchical order of civilisations. From the mid-nineteenth century through to the mid-twentieth century, this ethnocentrism produced what Lyotard describes as ‘the flattening of differences, or the demand for a norm (“human nature”)’, that ‘carries with it its own forms of terror’ (cited Braun 2004, 1352). The intervention of Aboriginal Protection demonstrates that humanist universalism has the potential to inflict such terror (it was the Protectorate of Aborigines Office reincarnated that was responsible, later in the nineteenth and twentieth centuries, for Aboriginal Australia’s Stolen Generation, and it was the assimilationist vision of the Protectors’ equivalents in Canada that led to the abuses of the Residential Schools system). But we must not forget that **humanism’s alternatives**, founded upon principles of difference rather than commonality, have the potential to do the same and even **worse**. In the nineteenth century, Caribbean planters and then emigrant British settlers emphasised the multiplicity of the human species, the **absence of any universal ‘human nature’**, the incorrigibility of difference, in their upholding of biological determinism. Their assault on any notion of a fundamental commonality among human beings has disconcerting points of **intersection with the radical critique of humanism** today. The scientific argument of the nineteenth century that came closest to post-humanism’s insistence on the hybridity of humanity, promising to ‘close the ontological gap between human and non-human animals’ (Day 2008, 49), was the evolutionary theory of biological descent associated with Darwin, and yet this theory was adopted in Aotearoa New Zealand and other colonial sites precisely to legitimate the potential extinction of other, ‘**weaker’ races** in the face of British colonisation on the grounds of the natural law of a struggle for survival (Stenhouse 1999). Both the upholding and the rejection of human–nature binaries can thus result in racially oppressive actions, depending on the contingent politics of specific social assemblages. Nineteenth century colonial humanitarians, inspired as they were by an irredeemably ethnocentric and religiously exclusive form of universalism, at least combatted exterminatory settler discourses and practices at multiple sites of empire, and provided spaces on mission and protectorate stations in **which indigenous peoples could be shielded** to a very limited extent from dispossession and murder. They also, unintentionally, reproduced discourses of a civilising mission and of a universal humanity that could be deployed by anticolonial nationalists in other sites of empire that were never invaded to the same extent by settlers, **in independence struggles** from the mid-twentieth century. Finally, as Whatmore’s (2002) analysis of the Select Committee on Aborigines reveals, they provided juridical narratives that are part of the arsenal of weapons that indigenous peoples can wield in attempts to claim redress and recompense in a postcolonial world. The politics of humanism in practice, then, was riddled with contradiction, fraught with particularity and latent with varying possibilities. It could be relatively progressive and liberatory; it could be dispossessive and culturally genocidal. Within its repertoire lay potential to combat environmental and biological determinism and innatism, however, and this should not be forgotten in a rush to condemn humanism’s universalism as well as its anthropocentrism. It **is in the tensions within universalism that the ongoing potential of an always provisional, self-conscious, flexible and strategic humanism – one that now recognises the continuity between the human and the non-human as well as the power-laden particularities of the male, middle class, Western human subject – resides**.

### Wilder

#### 1 – Aff isn’t radical humanism - they say that humans, i.e. the white foreign policy elite, should be able to determine who lives and dies – obviously distinct from haiti invoking democratic norms to overthrow imperial france

#### 2 – extending the category of the human is bad because there will always be those who are outside of the boundary extended

## Alternative

### Overview – Alternative

#### The alternative is posthumanism – instead of valuing things relative to humans, we should value things relative to each other – we understand that land, space, and technology are all connected and influence each other – that solves our link arguments because instead of thinking of autonomous weapons strictly as a problem of techonological control we think of them as part of a broader structure of militarism that creates tools of war for violence and colonial subjugation

### Perm Do Both

#### 1 – Links are disadvantages to the permutation – they say human decisionmaking is better than AI we say that binary is bad and they say safe deterrence is good while we say deterrence should not exist at all

#### 2 – It’s severance which is a voter – makes the aff a moving target impossible to pin down which moots all ground

#### 3 – The logic of the perm itself is humanist because it treats it as something to control – this was the bourne argument about instrumentalism about how the aff tacks on the alt as an advocacy which

#### 4 – There’s no net benefit---A. Not in the 1ar, so you shouldn’t give them new 2ar contextualization because we don’t have a 3nr B. alt solves case C. Epistemology means they don’t have an aff

#### 5 – Multiple perms are a voter---Strat skew---have to weigh and answer multiple worlds, which is especially bad because they didn’t explain how the perms interact---voter for deterrence.

#### 6 – Judge kick the alt if they win a perm and vote on turns case---key to advocacy testing

### Perm Double Bind

#### 1 – Aff isn’t a drop in the bucket – link evidence is specific to lethal autonomous weapons

#### 2 – Framework means this isn’t about literal policy solutions which materially solve impacts about the praxis we adopt

## Framework

#### Framework – Our interpretation is that the affirmative is an object of research and the aff needs to win its research model is ethical prior to weighing the consequences of the aff

#### 1 – Interrogating their scholarship produces the best form of ethics and activism which is unique net benefit in the context of the topic – otherwise they would sanitize racial slurs, misgendering, and other problematic discourses because case outweighs

#### 2 – Try or die – absent holding the aff accountable for it’s flawed research the academic endeavor of debate is doomed to fail – plan focus is simply a way for them to displace culpability for their corrupt academic practices

#### 3 – If we win the aff is unethical and indebted to colonial subjugation then you as a judge cannot vote for it because you are first and foremost and educator in this space, not a policymaker

### Subject formation

#### Yes, debate is subject formation – debate and its research practices alters subjectivities proven by the saturation of hyper-leftists in the activity – there’s a reason so many debaters are activists, scholars, public defendants

#### Even if individual rounds don’t have an immediate impact, rejection of racist and misogynistic authors from the debate space over time prove our solvency argument –

### AT Fairness

#### 1 – Internal link not an impact – no one plays games to be fair

#### 2 – Not infinitely unpredictable – it’s based on the research the conducted which is limited to the 6 minutes of the aff – they chose to read a problematic plan which means they should be prepared

#### 3 – Structural unfairness non-uq’s – cutting cards, more coaches, going to camp, getting faster etc.

#### 4 – Cuts both ways – there are infinite affs – speccing states and weapons explodes prep

#### 5 – Valuing competition bad – pushes people out of the activity because they’re taught to cut cards until 2AM and be jerks for the sake of perceptual dominance – independently causes valorization of debaters just for their own competitive merit even when they commit heinous violence outside of the round.

#### 6 – critical literature has been around before the judge was born and normalized into every learning institution proven by the endless slew of camp lectures which means they should have some prep

### AT Clash

#### 1 – Restrict debate down to a 5 second plan text – interrogating the rest of the 1AC allows for a broader more nuanced debate

#### 2 – They should be prepared

#### [that was above] OR

#### [They chose advantage areas and had infinite prep to do so, they should defend them – also critical literature has been around before the judge was born and normalized into every learning institution proven by the endless slew of camp lectures which means they should have some prep]

#### 3 – Macoun – info’s sake for info’s sake is bad – knowledge refinement always comes at the cost of someone else’s and saying yours is better replicates 18th century enlightenment thought which necessitates erasure of the people and knowledge that is deviant from the system

### AT Scenario Planning

#### Scenario planning is charting problems, laying out potential paths of actions, and identifying potential uncertainties which the aff isn’t – they dogmatically pick the biggest baddest problem and only one solution while asserting that it’ll work 100% of the time

# Other Things

## Krause

### Krause---XT

#### The affirmative justifies the banning of LAWS via the preservation of global deterrence postures – This naturalizes deterrence as inevitable – Instead of questioning the escalatory ncuelar postures that generate the opportunities for escalation in the first place, the affirmative accepts the use of threats of nuclear and military action as necessary to maintain global stability---Instead of working against militarism, the affirmative makes it more effective with tactical policies like bans that enhance our ability to coerce other countries with nukes

#### Also links to our white futurity impact – Deterrence relies on the military coercion of subjects in the Global South foreclosing a more ethical relationship to land

#### Turns case – By accepting nuclear threats as necessary for global stability, the affirmative creates the very conditions that allow escalation in the first place

#### To clarify, our argument is not that we should collapse deterrence and first strike Russia but rather that we should question the necessity of the threat of nuclear retaliation inherent to deterrence logic

## cards

#### Arms control is both instrumental, the thought that arms are tools used by dangerous makers, and substantive, the thought that tools exceed reasonable human control. That necessitates both the subjugation of the world to the enlightenment reason of western man and incremental short-termism which trades off with broader transformative action.

Bourne 18 [Mike Bourne, Reader in the School of History, Anthropology, Philosophy and Politics @ Queen’s University – Belfast, 2018, "Cyborgs, control and transformation," Taylor &amp; Francis, https://www.taylorfrancis.com/chapters/edit/10.4324/9781315613475-13/cyborgs-control-transformation-mike-bourne, accessed 4-16-2021]LHSBC

In arms control thought, security studies, and indeed most western modern political thought, the engagement of separate political and technological realms is characterised by two particular perspectives that assert a deterministic relationship between social/political relations and technology: ‘instrumental’ and ‘substantive’ views of technology (Feenberg 1991; Peoples 2007; Wyn Jones 1999). Instrumental views of technology predominate in western political and social thought and view technology as merely a neutral tool, ‘subservient to values established in other social spheres i.e. politics and culture’ (Wyn Jones 1999: 85). The US National Rifle Association (NRA) slogan that ‘It’s not the gun, it’s the person holding the gun’ that kills espouses an archetypal instrumentalism which views technologies (indeed all material things) as having no significant bearing on the ends to which they are put. For Feenberg (1991) instrumentalism also assumes that technologies are fully objective and thus are universal, such that what they achieve in one place can be achieved in others (Feenberg 1991). Such technological instrumentalism is a common feature of otherwise opposed schools of thought in international security studies ranging from realism, liberalism, constructivism, and critical security studies (Bourne 2012). ‘Substantive’ views, in contrast, portray technology as determining social and political relations in spite of the intentions of human actors. Often cast in pessimistic terms, as in Ellul (2010) or Heidegger (1977), Feenberg argues that substantive views often claim to seek to ‘defend “humanity” against machines’ (1991: 2). In security studies, however, substantivism is present in both optimistic and pessimistic claims. Kenneth Waltz’s famous argument that possession of even a small number of nuclear weapons induces stable deterrence and restraint in the use of force (Waltz and Sagan 2002) is clearly substantivist; but so too are claims that some types of weapons are inherently inhumane by virtue of being indiscriminate (a claim made to underlie prohibitions on biological and chemical weapons and anti-personnel landmines and cluster munitions). Much of the academic debate and political practice of engaging the relations between weapons and security operate on the basis of instrumental or substantive arguments. Importantly, in some areas both are invoked together: thus, Peoples (2007) argues that those using substantivist accounts of nuclear weapons proliferation often invoke instrumental accounts of missile defences. Such arguments are able to co-articulate seemingly contradictory positions as both perspectives rest on the same foundations of a clear separation of technology and politics that are then related (Bourne 2012; Peoples 2007). The separation of technology and society/politics in either deterministic mode is foundational to much International Relations and security theory that relies upon a ‘Cartesian dualism’ of ideas and matter (Pouliot 2010; Wendt 2007). This holds in place the contest between realism and other rationalist theories that claim a materialism that is in fact highly attenuated, viewing material factors like weapons as mere resources; and critical and constructivist scholarship that emphasise the priority of anthropocentric notions of inter-subjectivity. Beyond particular arguments about particular weapons, the development of arms control theory can also be seen as a shifting assemblage of instrumentalism and substantivism. The distancing of arms control from disarmament can be read as an assertion of instrumentalism against substantivism (Bourne 2012). This is further emphasised in realist characterisations of international security politics as characterised by unchanging anarchy that casts arms management as an instrumental technique for managing the security dilemma among rational individualised states seeking autonomy and the preservation of flexibility (Steiner 2010). This, of course, leaves arms control open to outright rejection, as articulated in Colin Gray’s assertion of the Cartesian distinction: ‘Peace and war are political; they are not technological or administrative via apolitical and astrategic theories of arms control and stability’ (1992: 68). Instrumentalism, then, distances weapons from politics and sees both not only as separate but as fixed. Yet ghosts of substantivism re-emerge in the portrayal of technological development as an autonomous sphere. Here, though, substantivism reinforces the managerial emphasis of arms control. The assumption that technological development occurs autonomously and more rapidly than regulatory frameworks can anticipate has been emphasised since the early days of arms control theory to present concerns with the revolutions in bio-technology for the Biological and Toxin Weapons Convention (BTWC) or the emerging militarisation of nano-technology (Altmann 2006; Kahn 1960; Wheelis and Dando 2000; Whitman 2007). When viewed as relatively autonomous, the process of technological change generates significant uncertainties about future military capabilities which, combined with anarchy and security dilemma uncertainties, are believed to place pressure on states to favour short-term, self-help measures in arms control (Farrell 2007). In much arms control theory, both instrumentalism and substantivism have served to limit its prospects and the expectations of what it can achieve. But, accounts that see greater potential for arms control in transforming global security practice also replay the Cartesian divide with constructivist and many critical scholars emphasising ideational shifts constructed inter-subjectively explaining both particular taboos on particular weapons (Adler 1997; Price 1997; Tannenwald 2007). Here the weapon itself is – largely – mute and inert, and arms control operates first in the purely social inter-subjective world of human agents that attach meanings to these objects. Here, then, arms control is a realm of social inter-action and ideas, and the critical task is to combat ‘nuclear reason’ or ‘nuclearism’ (Booth 1999; Burke 2009), to work to delegitimise nuclear weapons (Berry et al. 2010), or to shift arms control practices towards humanitarian ends (Garcia 2014). Here instrumentalism may also be seen not as an assumption of arms control, but its goal. This is most notable in relation to controls over ‘pariah weapons’ that have no place in ‘civilized warfare’ (Cooper 2006). Prohibitions and disarmament commitments for ‘indiscriminate’ or ‘inhumane’ weapons reflect the self-identification of the West as civilised military powers engaged in the civilising of warfare (Krause and Latham 1998; Cooper 2006). Arms control, then, is an ‘enlightenment’ project to master politically science and technology’s mastery over nature (Walker 2007). Here control is not just a means of stabilisation of international order but a larger project inherited from the Clausewitzean dream of the subjugation of violence to reason; the realisation of ‘real war’ within an often liberal mode of civilising. The greatest enemy here, then, is indiscriminate killing, not killing per se. The practice of arms control also arises from a dualistic politics. The dominant technique of arms control is an incremental process that operates by parsing issues into constituent technical problems amenable to manipulation by experts (Borrie 2005). Krause and Latham identify a ‘Non-proliferation, arms control and disarmament culture’ that draws upon a particular western ‘manipulative approach to negotiation and a commitment to a step-by-step process that was in some sense supposed to be “technical” or “apolitical” ’. This derives not merely from the temporal limits on certainty produced by autonomous technology but also a modernist dream of the rationalisation of violence premised on: a belief, common to very few cultures, that ‘man can freely manipulate his environment for his own purposes . . . set his objective, develop a plan designed to reach that objective, and then act to change the environment in accordance with that plan’. (1998: 28) This dominant instrumentalism does not resolve the tension between instrumentalism and substantivism. Rather, as Brian Rappert (2006) argues, in control regimes where one perspective is dominant, the other is frequently used to critique and present alternative programmes of action. What emerges are three different types of settlement (rather than an agreed solution) that specify a location for the origin of the problem of armed violence. First, danger may be inherent in the weapon itself (such as arguments that some weapons are inherently indiscriminate); second, it may reside in the (type of) actor in possession of the weapon; or third, in the particular context in which weapons and actors find themselves. This settlement distributes global political action in particular ways, and each is a combination of substantivism and instrumentalism. The first, predominantly substantivist, location of harm arising from the weapon itself tends to lead towards not just strong prohibitions, but strong international management, albeit with varying degrees of institutionalisation. Thus biological and chemical weapons are banned on substantivist grounds that they cause indiscriminate harm, and the ban is rendered operable through instrumentalist management of dual use goods and exceptions (for example, stocks of biological agents retained for scientific and prophylactic purposes) (Rappert 2006).The second, hybrid form, locating danger in particular types of actors, underlies considerable hypocrisy – such as the central bargain of the 1968 Nuclear Non-Proliferation Treaty that legitimates the long temporary retention and build-up of the P5’s nuclear arms. Recent hopes for moves towards ‘nuclear zero’ and the revitalisation of disarmament discussions at NPT Review Conferences somewhat challenge this, but do so on the basis of concerns about ‘rogue states’ and ‘terrorist’ groups acquiring nuclear (or biological and chemical) weapons. In contrast, those instrumentalist characterisations that portray harm as related to particular contexts tend to be managed through national systems of control over the transfer of weapons and technologies, within the context of varying degrees of multilateral supplier cooperation. This is particularly the case in relation to conventional arms that are largely conceived of in instrumental narratives with particular recipients or contexts of concern. Even the recently agreed global Arms Trade Treaty merely locates controls in the application of a range of transfer control criteria within national systems of decision-making that operate on risk-based assessments pertaining to the contexts and character of recipient actors. The exception lies in substantivist narratives of inherently indiscriminate conventional arms like antipersonnel landmines and cluster munitions. Overall, therefore, arms control politics and theory has shifted, but it is consistently operative on a terrain constituted by Cartesian dualism. Instrumentalism and substantivism are ultimately deterministic accounts of the relations between preconstituted and separated realms of the social/political and the technological. That the two are continually in tension is formative of a deeply asymmetric set of arms control practices. There is a particular anthropocentrism in both arguments. In instrumental accounts, technologies merely do what they are told; it is the intentions of human actors that matter, whether encountered through instrumentally rational unitary states acting upon material interests, as in realism, or through ideas and norms whose production is largely confined to separate ideational realms, as in much constructivism and some critical security studies. Likewise, in much conventional weapons politics it is the intentions of states that matters, and in humanitarian arms control focussed on pariah weapons (landmines, cluster munitions, and so on) it is humanity that is to be protected from the ability of some weapons to exceed intentions. Thus, it is not just that the various arguments and strategies that have constituted arms control have tended to replay a deeper Cartesian dualism of ontological zones connected deterministically, but that this divide itself is grounded in anthropocentrism.

#### Bourne – Alt

Beyond Cartesian control What might arms control look like if its two main arguments (substantivism and instrumentalism) and their common foundations in Cartesian dualisms and anthropocentrism are rejected? Not only if neither position can fully dominate the other leading to inchoate settlement, but if the continual refrain of one or other position were impossible: If dominant perspectives are no longer critiqued merely by resort to the other, but if the aim of reducing armed violence by controlling the means of violence were thought through a different understanding of the social and technological, and the nature of action and causation?

Posthumanist approaches to ‘materiality’ offer an alternative to deterministic materialism and to the purified inter-subjectivity of constructivism. Here ‘materiality’ refers to the material dimensions and relations of social and political life, to how the material matters (whether the material is man-made ‘technology’ or ‘natural’) within the constitution and character of social and political relations (Dant 2005; Miller 2005; Pels, Hetherington and Vandenberghe 2002). Some critical security scholars posit this in terms of a dialectic of the social and technical (Feenberg 1991; Wyn Jones 1999). However, a posthumanist perspective resists such overarching ontological zones existing separately or relating dialectically. Rather than abstract aggregations, it may focus on the enactment of heterogeneous relations that ‘produce and reshuffle all kinds of actors including objects, subjects, human beings, machines, animals, “nature”, ideas, organisations, inequalities, scale and sizes, and geographical arrangements’ (Law 2007). An ontology of complex associations resists the modes of analysis formative of arms control theory and practice that produce purified ontological zones of society and technology (Latour 2002, 2005). It thus immediately dismisses the principal analytic technique of ‘purification’ in which humans and non-humans are separated prior to the characterisation of deterministic relations at an abstract level (Latour 1993). Rejecting philosophies that seek to produce explanation by the essence of one of these purified realms (such as the nature of weapons, the nature of social relations in anarchy, or the nature of inter-subjective meaning attachment), Latour (1988) argues simply that nothing is reducible to anything else. This posits an initially uncomfortable ‘symmetry’ of people and material objects that is often misunderstood. It is not that there is always this symmetry, but that it is a heuristic for avoiding a priori assumptions of determinative relationships (Harman 2009; Latour 2005). This means that arms control premised on the limits to action given in the technological or social realm can no longer be viewed as prior to their relations, and that neither can be viewed as a totalising force from which no action can escape. Rather than asserting logics and limits to action from elsewhere, or attempting to overcome their tensions dialectically, the distinctions between the subject and object, social and technical, human and non-human, should simply be ignored and the agency of all kinds of objects (human and non-human) followed for what it does. Attributing agency to non-human actants is certainly the most jarring element of this type of posthumanist thought. However, it is merely a recognition that action is always an entanglement and a process of modification. Rather than arms control seeking to fix a relationship of harm and violence by assuming agency matters only a deterministic mode of efficient linear causation and that it can be attributed only to either people or technology, action emerges in non-linear processes of collectives of humans and non-humans. Thus, material ‘things’ are active in the production, stabilisation and reproduction of social order (Bennett 2010; DeLanda 2006; Latour 2005; Preda 1999). The task of arms control need no longer be conceived as action undertaken within inherent limits of prior ontological zones; no longer limited by the temporal horizons of certainty or abstract laws of cooperation under anarchy. These have limited arms control in two major ways: they establish arms politics as a politics of control, and as a politics in which greater work is needed to transform than to maintain.

#### More-than-human geopolitics

A more-than-human geopolitics, conversely, incorporates the dynamic agency of humans and nonhumans, as well as the assemblages by which state power is transformed ([Dittmer, 2013](https://journals.sagepub.com/doi/full/10.1177/0967010617713157)). Accordingly, this framework foregrounds the artificial, cyborgian, and algorithmic materializations of state power in the world system. More specifically, exponential leaps made in artificial intelligence, machine learning, and the sophisticated robots that embody these algorithmic instructions all demand a reflection into – even revaluation of – the ‘who’ and the ‘what’ of warfare. Robotic intelligence is likely to figure centrally in the crises, discontents, and conflicts of the future world system.

A more-than-human geopolitics thus moves from a subjective model of power to incorporate insights from techno-politics, ‘a concept that captures the hybrid forms of power embedded in technological artifacts, systems, and practices’ ([Hecht, 2011](https://journals.sagepub.com/doi/full/10.1177/0967010617713157): 3). Through this challenge to human-centered accounts, ‘objects are suddenly highlighted not only as being full-blown actors, but also as what explains the contrasted landscape we started with, the over-arching powers of society, the huge asymmetries, the crushing exercise of power’ ([Latour, 2005](https://journals.sagepub.com/doi/full/10.1177/0967010617713157): 72). Political geographers, for example, have defined the state as an assemblage of objects, ‘considering “force relations” as the primary field through which a whole manner of different objects, bodies, and doings are policed’ ([Meehan et al., 2013](https://journals.sagepub.com/doi/full/10.1177/0967010617713157): 8; see also [Shaw and Akhter, 2012](https://journals.sagepub.com/doi/full/10.1177/0967010617713157), 2014). Nonhumans – whether AK-47s, computer viruses, drones, or barbed wire – are motor engines of force that police, patrol, and secure the world system. As [Schouten (2013](https://journals.sagepub.com/doi/full/10.1177/0967010617713157): 559) writes, politics ‘is in the first place the result of introducing non-human entities that give durability and “body” to social arrangements’.

This act of technical translation is inseparable from human subjectivity (see [Wilcox, 2017](https://journals.sagepub.com/doi/full/10.1177/0967010617713157)). For [Hannah Arendt (2013](https://journals.sagepub.com/doi/full/10.1177/0967010617713157): 9), ‘the objectivity of the world – its object- or thing-character – and the human condition supplement each other’. Accordingly, it is vital to see objects and subjects as intertwined forces that crystalize in the materialization and securitization of worlds ([Aradau, 2010](https://journals.sagepub.com/doi/full/10.1177/0967010617713157): 494). What we consider as ‘reality’ is not a neutral plane of existence but a contorted landscape of artificial and hyper-secured worlds. But these worlds are never fully under our control: nonhumans continually materialize unexpected geographies. Understood in this way, robots are not passive instruments but existential actors capable of reprogramming the worlds of human coexistence. Accordingly, the shift from a human to a more-than-human geopolitics does not signal the end of the political: it sharpens our tools for understanding the ontological asymmetries and injustices of worlds.