# 1NC R5 Blue Key

## 1

### T

#### Interpretation: The affirmative may not specify a just government.

#### “A” is an indefinite article that modifies “just government” in the res – means that you have to prove the resolution true in a vacuum, not a particular instance

CCC (“Articles, Determiners, and Quantifiers”, http://grammar.ccc.commnet.edu/grammar/determiners/determiners.htm#articles, Capital Community College Foundation, a nonprofit 501 c-3 organization that supports scholarships, faculty development, and curriculum innovation) LHSLA JC/SJ

The three articles — a, an, the — are a kind of adjective. The is called the definite article because it usually precedes a specific or previously mentioned noun; a and an are called indefinite articles because they are used to refer to something in a less specific manner (an unspecified count noun). These words are also listed among the noun markers or determiners because they are almost invariably followed by a noun (or something else acting as a noun). caution CAUTION! Even after you learn all the principles behind the use of these articles, you will find an abundance of situations where choosing the correct article or choosing whether to use one or not will prove chancy. Icy highways are dangerous. The icy highways are dangerous. And both are correct. The is used with specific nouns. The is required when the noun it refers to represents something that is one of a kind: The moon circles the earth. The is required when the noun it refers to represents something in the abstract: The United States has encouraged the use of the private automobile as opposed to the use of public transit. The is required when the noun it refers to represents something named earlier in the text. (See below..) If you would like help with the distinction between count and non-count nouns, please refer to Count and Non-Count Nouns. We use a before singular count-nouns that begin with consonants (a cow, a barn, a sheep); we use an before singular count-nouns that begin with vowels or vowel-like sounds (an apple, an urban blight, an open door). Words that begin with an h sound often require an a (as in a horse, a history book, a hotel), but if an h-word begins with an actual vowel sound, use an an (as in an hour, an honor). We would say a useful device and a union matter because the u of those words actually sounds like yoo (as opposed, say, to the u of an ugly incident). The same is true of a European and a Euro (because of that consonantal "Yoo" sound). We would say a once-in-a-lifetime experience or a one-time hero because the words once and one begin with a w sound (as if they were spelled wuntz and won). Merriam-Webster's Dictionary says that we can use an before an h- word that begins with an unstressed syllable. Thus, we might say an hisTORical moment, but we would say a HIStory book. Many writers would call that an affectation and prefer that we say a historical, but apparently, this choice is a matter of personal taste. For help on using articles with abbreviations and acronyms (a or an FBI agent?), see the section on Abbreviations. First and subsequent reference: When we first refer to something in written text, we often use an indefinite article to modify it. A newspaper has an obligation to seek out and tell the truth. In a subsequent reference to this newspaper, however, we will use the definite article: There are situations, however, when the newspaper must determine whether the public's safety is jeopardized by knowing the truth. Another example: "I'd like a glass of orange juice, please," John said. "I put the glass of juice on the counter already," Sheila replied. Exception: When a modifier appears between the article and the noun, the subsequent article will continue to be indefinite: "I'd like a big glass of orange juice, please," John said. "I put a big glass of juice on the counter already," Sheila replied. Generic reference: We can refer to something in a generic way by using any of the three articles. We can do the same thing by omitting the article altogether. A beagle makes a great hunting dog and family companion. An airedale is sometimes a rather skittish animal. The golden retriever is a marvelous pet for children. Irish setters are not the highly intelligent animals they used to be. The difference between the generic indefinite pronoun and the normal indefinite pronoun is that the latter refers to any of that class ("I want to buy a beagle, and any old beagle will do.") whereas the former (see beagle sentence) refers to all members of that class

#### The article “a” implies a nonspecific or generic reading of the word “just government”.

Walden 20 Walden University [The Writing Center provides a broad range of writing instruction and editing services for students at Walden University, including writing assistance for undergraduates, graduate students, and doctoral capstone writers], “"A" or "An"” last modified July 14 2020, <https://academicguides.waldenu.edu/writingcenter/grammar/articles> SM

When to Use "A" or "An" "A" and "an" are used with singular countable nouns when the noun is nonspecific or generic. I do not own a car. In this sentence, "car" is a singular countable noun that is not specific. It could be any car. She would like to go to a university that specializes in teaching. "University" is a singular countable noun. Although it begins with a vowel, the first sound of the word is /j/ or “y.” Thus, "a" instead of "an" is used. In this sentence, it is also generic (it could be any university with this specialization, not a specific one). I would like to eat an apple. In this sentence, "apple" is a singular countable noun that is not specific. It could be any apple.

#### “Democracy” is a generic indefinite singular.

Leslie 12 Leslie, Sarah-Jane. “Generics.” In Routledge Handbook of Philosophy of Language, edited by Gillian Russell and Delia Fara, 355–366. Routledge, 2012. <https://www.princeton.edu/~sjleslie/RoutledgeHandbookEntryGenerics.pdf> SM

GENERICS VS. EXISTENTIALS The interpretation of sentences containing bare plurals, indefinite singulars, or definite singulars can be either generic as in (1) respectively or existential/specific as in (2): (1) Tigers are striped A tiger is striped The tiger is striped. (2) Tigers are on the front lawn A tiger is on the front lawn The tiger is on the front lawn. The subjects in (1) are prima facie the same as in (2), yet their interpretations in (1) are intuitively quite different from those in (2). In (2) we are talking about some particular tigers, while in (1) we are saying something about tigers in general. There are some tests that are helpful in distinguishing these two readings. For example, the existential interpretation is upward entailing, meaning that the statement will always remain true if we replace the subject term with a more inclusive term. For example, if it is true that tigers are on the lawn, then it will also be true that animals are on the lawn. This is not so if the sentence is interpreted generically. For example, it is true that tigers are striped, but it does not follow that animals are striped (Lawler 1973 Laca 1990; Krifka et al 1995). Another test concerns whether we can insert an adverb of quantification (in the sense of Lewis 1975) with minimal change of meaning (Krifka et al 1995). For example, inserting “usually” in the sentences in (1) (e.g. “tigers are usually striped”) produces only a small change in meaning, while inserting “usually” in (2) dramatically alters the meaning of the sentence (e.g. “tigers are usually on the front lawn). (For generics such as “mosquitoes carry malaria”, the adverb “sometimes” is perhaps better used than “usually”.)

#### This applies to the res – 1] Upward entailment test – extemp 2] Adverb test – extemp

#### Violation: they spec India

#### Standards:

#### 1] Precision – the counter-interp justifies them arbitrarily doing away with random words in the resolution which decks negative ground and preparation because the aff is no longer bounded by the resolution. Independent voter for jurisdiction – the judge doesn’t have the jurisdiction to vote aff if there wasn’t a legitimate aff.

#### 2] Limits – there are infinite governments that could be just – explodes limits since there are tons of independent affs plus functionally infinite combinations, all with different advantages in different political situations. Kills neg prep and debatability since there are no DAs that apply to every aff – i.e. laws about the right to strike in the US are different than in New Zealand – means the aff is always more prepared and wins just for speccing.

#### 3] TVA – just read your aff as an advantage under a whole adv, solves your offense

#### Fairness – debate is a competitive activity that requires fairness for objective evaluation. Outweighs – it constrains your ability to evaluate the rest of the flow because they require fair evaluation.

#### Drop the debater – to deter future abuse and set better norms for debate.

#### Competing interps – reasonability is arbitrary and invites judge intervention but we creates a race to the top where we create the best norms for debate.

#### No RVIs – a] illogical, you don’t win for proving that you meet the burden of being fair, logic outweighs since it’s a prerequisite for evaluating any other argument, b] RVIs incentivize baiting theory and prepping it out which leads to maximally abusive practices

#### 1AR theory is dta and reasonability – sandbagging o/w, irresolvable o/w

#### RVI on 1AR theory – time skew o/w

## 2

### NC

#### Permissibility and presumption negate

#### 1] Obligations- the resolution indicates the affirmative has to prove an obligation, and permissibility would deny the existence of an obligation

#### 2] Falsity- Statements are more often false than true because proving one part of the statement false disproves the entire statement. Presuming all statements are true creates contradictions which would be ethically bankrupt.

#### 3] Negating is harder – A] Aff gets first and last speech which control the direction of the debate B] Affirmatives can strategically uplayer in the 1ar giving them a 7-6 time skew advantage, splitting the 2nr C] They get infinite prep time

#### 4] Affirmation theory- Affirming requires unconditionally maintaining an obligation

Affirm [is to]: maintain as true.

That’s Dictionary.com- “affirm” https://www.dictionary.com/browse/affirm

#### Ethics must begin a priori and the meta-ethic is bindingness.

#### [1] Uncertainty – our experiences are inaccessible to others which allows people to say they don’t experience the same, however a priori principles are universally applied to all agents.

#### [2] Bindingness – I can keep asking “why should I follow this” which results in skep since obligations are predicated on ignorantly accepting rules. Only reason solves since asking “why reason?” requires reason which is self-justified.

#### That means we must universally will maxims— any non-universalizable norm justifies someone’s ability to impede on your ends.

#### Thus, the standard is consistency with the categorical imperative.

#### Prefer –

#### [1] All other frameworks collapse—non-Kantian theories source obligations in extrinsically good objects, but that presupposes the goodness of the rational will.

#### [2] Theory – Frameworks are topicality interps of the word ought so they should be theoretically justified. Prefer on resource disparities—a focus on evidence and statistics privileges debaters with the most preround prep which excludes lone-wolfs who lack huge evidence files. A debate under my framework can easily be won without any prep since huge evidence files aren’t required.

#### [3] No 1AR Framework: It moots 7 minutes of the 1NC and exacerbates the AFF infinite prep time so I should be able to compensate by choosing. They justify substantive skews by shifting frame of offense.

#### Negate:

#### 1] Strikes violate individual autonomy by exercising coercion.

Gourevitch 18 [Alex; Brown University; “The Right to Strike: A Radical View,” American Political Science Review; 2018; [https://sci-hub.se/10.1017/s0003055418000321]](https://sci-hub.se/10.1017/s0003055418000321%5d//SJWen) Justin

\*\*Edited for ableist language

Every liberal democracy recognizes that workers have a right to strike. That right is protected in law, sometimes in the constitution itself. Yet strikes pose serious problems for liberal societies. They involve violence and coercion, they often violate some basic liberal liberties, they appear to involve group rights having priority over individual ones, and they can threaten public order itself. Strikes are also one of the most common forms of disruptive collective protest in modern history. Even given the dramatic decline in strike activity since its peak in the 1970s, they can play significant roles in our lives. For instance, just over the past few years in the United States, large illegal strikes by teachers ~~paralyzed~~ froze major school districts in Chicago and Seattle, as well as statewide in West Virginia, Oklahoma, Arizona, and Colorado; a strike by taxi drivers played a major role in debates and court decisions regarding immigration; and strikes by retail and foodservice workers were instrumental in getting new minimum wage and other legislation passed in states like California, New York, and North Carolina. Yet, despite their significance, there is almost no political philosophy written about strikes.1 This despite the enormous literature on neighboring forms of protest like nonviolence, civil disobedience, conscientious refusal, and social movements.

The right to strike raises far more issues than a single essay can handle. In what follows, I address a particularly significant problem regarding the right to strike and its relation to coercive strike tactics. I argue that strikes present a dilemma for liberal societies because for most workers to have a reasonable chance of success they need to use some coercive strike tactics. But these coercive strike tactics both violate the law and infringe upon what are widely held to be basic liberal rights. To resolve this dilemma, we have to know why workers have the right to strike in the first place. I argue that the best way of understanding the right to strike is as a right to resist the oppression that workers face in the standard liberal capitalist economy. This way of understanding the right explains why the use of coercive strike tactics is not morally constrained by the requirement to respect the basic liberties nor the related laws that strikers violate when using certain coercive tactics.

#### 2] Means to an end: employees ignore their duty to help their patients in favor of higher wages which treats them as a means to an end.

#### 3] The aff homogenizes all strikes as an unconditional right which is unethical.

Loewy 2K, Erich H. "Of healthcare professionals, ethics, and strikes." Cambridge Q. Healthcare Ethics 9 (2000): 513. (Erich H. Loewy M.D., F.A.C.P., was born in Vienna, Austria in 1927 and was able to escape first to England and then to the U.S. in late 1938. He was initially trained as a cardiologist. He taught at Case Western Reserve and practiced in Cleveland, Ohio. After 14 years he devoted himself fully to Bioethics and taught at the University of Illinois for 12 years. In 1996 he was selected as the first endowed Alumni Association Chair of Bioethics at the University of California Davis School of Medicine and has taught there since.) JG

It would seem then that the ethical considerations for workers striking in an industry such as a shoe factory or a chain grocery store are quite different from the ethical considerations for workers in sanitation, police, or fire departments, or for professionals such as teachers or those involved directly in healthcare. Even in the latter “professional” category, there are subtle but distinct differences of “rights” and obligations. However, one cannot conclude that for workers in essential industries strikes are simply ethically not permissible, whereas they are permissible for workers in less essential industries. Strikes, by necessity, injure another, and injuring another cannot be ethically neutral. Injuring others is prima facie ethically problematic—that is, unless a good and weighty argument for doing so can be made, injuring another is not ethically proper. Striking by a worker, in as much as doing so injures another or others, is only a conditional right. A compelling ethical argument in favor of striking is needed as well as an ethical argument in favor of striking at the time and in the way planned. It remains to delineate the conditions under which strikes, especially strikes by workers in essential industries and even more so by persons who consider themselves to be “professionals,” may legitimately proceed and yet fulfill their basic purpose.

#### 4] Free-riding: strikes are a form of free-riding since those who don’t participate still reap the benefits.

Dolsak and Prakash 19 [Nives and Aseem; We write on environmental issues, climate politics and NGOs; “Climate Strikes: What They Accomplish And How They Could Have More Impact,” 9/14/19; Forbes; <https://www.forbes.com/sites/prakashdolsak/2019/09/14/climate-strikes-what-they-accomplish-and-how-they-could-have-more-impact/?sh=2244a9bd5eed>] Justin

While strikes and protests build solidarity among their supporters, they are susceptible to collective action problems. This is because **the goals that strikers pursue tend to create non-excludable benefits**. That is, benefits such as climate protection can be enjoyed by both strikers and non-strikers. Thus, large participation in climate strikes will reveal that in spite of free-riding problems, a large number of people have a strong preference for climate action.

## 3

### CP

#### Counterplan text – The Supreme court of India ought to enter a prior, binding, and genuine consultation with the International Court of Justice to issue a binding ruling to [recognize a worker’s unconditional right to strike against the government]

#### ICJ says yes and creates a culture of *acculturation* that socializes acceptance of international law – the aff shreds that.

Brudney 21 [James; 2/8/21; Joseph Crowley Chair in Labor and Employment Law, Fordham Law School; “The Right to Strike as Customary International Law,” THE YALE JOURNAL OF INTERNATIONAL LAW, Vol 46, <https://digitalcommons.law.yale.edu/cgi/viewcontent.cgi?article=1710&context=yjil>] Justin \*\* Brackets in original

C. FOA and the Right to Strike as Opinio Juris There is also considerable support for the proposition that the general practice of states on FOA and the right to strike stems from acceptance as a matter of legal obligation. Admittedly, while the existence of opinio juris may be inferred from a general practice, the International Court of Justice (ICJ) has at times noted the insufficiency or inconclusiveness of such practice, instead seeking confirmation that "[states'] conduct is 'evidence of a belief that this practice is rendered obligatory by the existence of a rule of law requiring it. ",149 Trade agreements, for instance, may represent treaty law and may qualify as evidence of general practice, but they are typically entered into by States that have specific economic or political objectives rather than from a desire to embrace obligations arising under international law.15° Further, it is possible that even with respect to ILO conventions, widespread ratification is in part a function of acculturation, insofar as endorsements across a region contribute to socialized acceptance of norms on FOA, reassuring peer countries that protecting rights to association including the right to strike will not place them in an inferior competitive position. 151 That said, the ICJ often does infer the existence of opinio juris from a general practice and/or from determinations by national or international tribunals.152 And there are ample reasons to draw such an inference here. To start, FOA is consciously accepted as an obligation by ILO member states not simply through ratification of Convention 87 (covering more than 80 percent of them) but by virtue of membership itself. The ILO Constitution expressly requires support for FOA principles, and these principles are further imbedded through a tripartite governance structure that allocates power-sharing roles to worker organizations alongside governments and employers. 153 Thus, ILO members understand there is an underlying obligation to respect FOA in law and practice.154 A second reason is that domestic law can provide relevant evidence regarding the presence of opinio juris among states. Commitments to FOA expressed in national constitutions, statutes, and court decisions are not necessarily evidence of a state's belief that the principle is international as opposed to domestic law. Nonetheless, the International Law Commission has made clear that evidence of acceptance as law (opinio juris) "may take a wide range of forms," including but not limited to "official publications; government legal opinions; [and] decisions of national courts." 155 In this regard, the CEACR in 2012 identified 92 countries where "the right to strike is explicitly recognized, including at the constitutional level"; the list includes six countries that have not ratified Convention 87.156 Recognition in domestic law of a right to strike alongside a conscious decision not to ratify Convention 87 could give rise to an inference that these six countries are rejecting the right as a principle of international law. However, as explained earlier, national courts for two of the six non-ratifying countries (Brazil and Kenya) expressly invoke ILO membership and/or principles as guidance in their domestic law decisions.157 In addition, Canada—a country not listed among the 92 endorsing the right to strike in the 2012 General Survey—has since recognized a constitutional right to strike under national law, relying in part on international law principles including CEACR and CFA determinations.158 The Canadian Supreme Court had previously been explicit in invoking Convention 87, ICESCR, and ICCPR as "documents [that] reflect not only international consensus but also principles that Canada has committed itself to uphold." 159 Further, a third country in the group of six—South Korea—has affirmed in its trade agreements with the United States and the EU its obligation to "adopt and maintain in its statutes and regulations, and practices" FOA in accordance with the ILO Declaration.16° And in various CFA complaints against South Korea for violating FOA principles, including the right to strike, the Government has disputed the facts of the complaints while at the same time recognizing that such rights are embedded in international law.161 Accordingly, a more relevant reference point in this setting may be that "when States act in conformity with a treaty provision by which they are not bound . . . this may evidence the existence of acceptance as law (opinio juris) in the absence of any explanation to the contrary.3 3162 Stepping back, domestic law on FOA and the right to strike, which for many countries developed after Convention 87 and its initial applications by the CEACR and CFA, may be viewed in part as a window into countries' sense of obligation in law and practice. A state may at times adopt labor provisions of a trade agreement for reasons of comity or relative competitive advantage. These reasons may play a more modest role with respect to adoption of certain human rights treaties or ILO conventions. 163 But evidence of practice and obligation in the domestic law sphere—especially when informed by regard for international instruments—seems almost by definition to be a function of acceptance as law rather than susceptibility to strategic motivations. In this regard, there are numerous instances in recent years where governments have expanded their legislative protections for the right to strike following a period of dialogue with the CEACR, and that committee has recognized and applauded the changes in law. 164 Of particular relevance to the U.S. setting, these expansions have included assuring the right to strike for public sector employees and prohibiting the hiring of replacements for strikers. 165 A third reason to infer opinio juris (in addition to the centrality of FOA principles within the ILO Constitution and the strong evidence of FOA and right-to-strike practice and obligation under domestic law) involves recent statements from high officials in the United Nations indicating that the right to strike is understood by its leaders as CIL. In his 2016 report to the U.N. General Assembly, the U.N. Special Rapporteur on the rights to freedom of peaceful assembly and association explained, "The right to strike has been established in international law for decades, in global and regional instruments, and is also enshrined in the constitutions of at least 90 countries. The right to strike has, in fact, become customary international law.'5166 In 2018, responding to a press briefing on a strike by U.N. employees following announced pay cuts, the Deputy Spokesman for the U.N. Secretary-General reiterated the U.N. view that the right to strike is indeed CIL and did so in the context of the right being asserted by public employees not involved in the administration of the state: Question: Does the Secretary-General believe that U.N. staff have a right to take part in industrial action? Deputy Spokesman: We believe the right to strike is part of customary international law. 167 These statements did not simply materialize in recent times. Two major U.N. Human Rights treaties—the ICESCR and the ICCPR—have been interpreted by their relevant treaty bodies to include a right to strike; these bodies have reaffirmed their joint commitment to the right to strike as part of FOA, and they regularly monitor governments' record of compliance with this right. 168 And as noted earlier, the two treaties—each ratified by over 80 percent of U.N members—include a clause explicitly identifying respect for ILO Convention 87. In sum, the principles of FOA including the right to strike would appear to satisfy both prongs of the CIL test. The widely recognized general practice on strikes has sufficient shape and contours: a basic right, three substantive exceptions (public servants involved in administration of the state, essential services in the strict sense of the term, and acute national emergencies), a recognition that strikers retain their employment relationship during the strike itself, and certain procedural prerequisites or attached conditions.169 There are variations in national practice and also disagreements at the margins about what the right to strike protects, but these aspects are not different in kind from diversity and contests regarding international rights prohibiting child labor, or for that matter domestic constitutional rights involving freedom of expression or the right to bear arms. As for opinio juris, a broad range of sources combine to establish that the general practice stems from a sense of acceptance and obligation: ILO foundation and structure; two widely endorsed United Nations human rights treaties; national constitutions; government representations; domestic legislative and judicial decisions that expressly refer to or impliedly accept international standards and practices; and contemporary U.N. leadership.

#### Ruling on the right to strike secures the legitimacy of the ICJ as an international mediation body.

Hofmann and Schuster 16 [Claudia and Norbert; February 2016; Dr. Claudia Hofmann works as a research associate at the Chair for Public Law and Policy at the University of Regensburg. She specializes in public international law (in particular the field of socio-economic human rights and equality-oriented policies), social law, constitutional and administrative law. Norbert Schuster works as a lawyer in Berlin and teaches at the University of Bremen. He specialises in labour law; “It ain’t over ‘til it’s over: the right to strike and the mandate of the ILO Committee of Experts revisited,” <https://global-labour-university.org/fileadmin/GLU_Working_Papers/GLU_WP_No.40.pdf>] Justin

BASES FOR A POTENTIAL RULING BY THE INTERNATIONAL COURT OF JUSTICE The question of whether the Committee has left the area of interpretation and entered the sphere of standard-setting can only be answered on a case by case basis. As has been indicated before, the primary question for an advisory opinion of the ICJ is whether Convention No. 87 contains a right to strike (see Section IV). What follows is, therefore, a cursory glance at the legal bases for an ICJ opinion, so as to sketch the broad outlines of a possible decision. Under Art 37.1 of the ILO Constitution, taken together with Art 36 of the ICJ Statute, the International Court of Justice is responsible for questions or differences of opinion about the interpretation of the ILO Constitution and the ILO Conventions. This reflects the function of the ICJ as an international mediation body inasmuch as cases are to be referred to the ICJ when the parties to a treaty disagree about the interpretation of a norm within the treaty. Let us assume that such a disagreement exists here as to whether, in particular, Art 3 of ILO Convention No. 87 also accords trade unions a right to strike.85 The Committee of Experts and the Committee on Freedom of Association have expressed a legal opinion on this. In the current legal situation, i.e. in the absence of concrete rules explicitly granting the Committee of Experts a corresponding interpretative competence, the competence to decide on this issue rests with the ICJ. Upon what sources of law and which principles will the ICJ base its decision? Two provisions are particularly relevant here. One is Art 38 of the ICJ Statute and the other is Art 31 of the Vienna Convention on the Law of Treaties (VCLT).

#### ICJ legitimacy is key to global multilateralism and crisis stability – it’s declining now.

Kornelios Korneliou 18 [Permanent Representative of Cyprus and Vice-President of the 73rd Session of the UN General assembly, "Report of the International Court of Justice," United Nations, 10-25-2018 <https://www.un.org/pga/73/2018/10/25/report-of-the-international-court-of-justice/>] Recut Justin

In the face of the headwinds against the multilateral system and global institutions, including direct attacks on their legitimacy, the International Court of Justice stands as testament to the principles of peace and justice in a multilateral world. Today’s debate builds on fifty years of exchange between the Court and the General Assembly, allowing Member States the opportunity to debate the work of the Court. This historic exchange is particularly pertinent to the 73rd Session of the General Assembly, which aims to ‘make the UN relevant to all’. The court system serves as a bulwark against arbitrariness and provides the mechanism for peaceful settlement of disputes, guaranteeing the stability so necessary for international cooperation. For the peoples of the world, the court may be far away but its impact is real. Excellencies, I am encouraged by the continued and enhanced confidence in the International Court of Justice. Not only has the Court’s workload increased over the last 20-years but this trend has continued into the period under review, demonstrating unequivocally that there remains a need and desire for a multilateral mechanism to address legal challenges of international concern. The variety of cases addressed by the court, and the fact that these cases stem from four continents, is also testament to the universality of the Court. In fact, as of today a total of 73 Member States have accepted, as compulsory, the jurisdiction of the Court. In addition to the Court’s role in advancing multilateralism, its judgements and advisory opinion directly influence the development and strengthening of the rule of law in countries the world over. As stated by the report: “everything the court does is aimed at promoting and reinforcing the rule of law, through its judgement and advisory opinions, it contributes to developing and clarifying international law.” Finally, at a time when human rights abuses and conflict devastate the lives of millions, and when tensions simmer in regions throughout the world, the adjudication of disputes between states remains an essential role of the Court in preserving peace and security. We welcome the continued readiness by the Court to intervene when other diplomatic or political means have proven unsuccessful. For Member States, respect for the decisions, judgements, advice, and orders of the Court remains critical for the efficacy and longevity of the international Justice System. The General Assembly has thus called upon States that have not yet done so to consider accepting the jurisdiction of the Court in accordance with its Statute. In closing, allow me to reiterate: if we are to preserve the international multilateral system, then adherence and respect for international law remains key.

#### Multilateralism solves a laundry list of impacts – even a tiny net benefit is enough to o/w the AFF

Esther Brimmer 14 [Assistant Secretary for the Bureau of International Organization Affairs at the United States Department of State from April 2009 to June 2013, “Smart Power” and Multilateral Diplomacy, June, <http://transatlantic.sais-jhu.edu/publications/books/Smarter%20Power/Chapter%204%20brimmer.pdf>] Recut Justin

Over the subsequent decade, the variable definitions of Smart Power have evolved to reflect a rapidly changing foreign affairs landscape – a landscape shaped increasingly by transnational issues and what can only be described as truly global challenges. Nations of the world must now calibrate their foreign policy investments to try to leverage new opportunities while protecting their interests from emerging vulnerabilities. Smart Power is no longer an alternative path; it is a four-lane imperative. ¶ The world in 2014 is fundamentally different from previous periods, growing vastly more interconnected, interdependent, networked, and complex. National economies are in many cases inextricably intertwined, with cross-border imports and exports increasing nearly tenfold over the past forty years, and more than doubling over just the past decade. At the same time, we are all connected – and connected immediately – to news and events that in past generations would have been restricted to their local vicinities.¶ Consider, for example, the 2011 tsunami that devastated parts of Japan. Not only did we know in real time of the earthquake that triggered the tsunami, we had live coverage of some of the tsunami’s most devastating impacts and then round-the-clock coverage of the Fukushima nuclear power plant crisis. Communications technology brings such events to us without delay and in high definition. This communications revolution, headlined by the explosion of social media, carries with it the almost unlimited potential to inform and educate. It also provides people and communities with new ability to influence and advance their causes – both benevolent and otherwise, as the dramatic events of recent years in North Africa and the Middle East have made clear. ¶ At the same time, global power is more diffuse today than in centuries. Although predictions of the nation-state’s demise have gone unrealized, non-state actors – including NGOs, corporations, and international organizations - are more influential today than perhaps at any point in human history. The same might be said for transnational criminal networks and other harmful actors. Concurrently, we are witnessing the rise of new centers of influence – the so-called “emerging” nations – that are seeking and gaining positions of global leadership. These emerging powers bring unique histories and new perspectives to the discussion of current challenges and the future of global governance. Several of these countries are democracies and share many of the core values of the United States; others have sharply different political systems and perspectives. All are gauging how to be more active in the global arena. ¶ It is this new, more diffused global system that must now find means of addressing today’s pressing global challenges – challenges that in many cases demand Smart Power ingenuity. From terrorism to nuclear proliferation, climate change to pandemic disease, transnational crime to cyber attacks, violations of fundamental human rights to natural disasters, today’s most urgent security challenges pay no heed to state borders. ¶ So, just as global power is more diffuse, so too are the opposing threats and challenges, and it is in this new reality that the United States must define and employ its Smart Power resources. That reality demands a definition that must now far exceed the origin parameters of hard and soft. Many of these challenges would be unresponsive to traditional Hard tools (coercion, economic sanctions, military force), while the application of Soft tools (norm advancement, cultural influence, public diplomacy) in customary channels is likely to provide unsatisfactory impact. ¶ Ultimately, the other component necessary in today’s Smart Power alchemy is robust, focused, and sustained international cooperation. In effect, in an increasing number of instances, Smart Power must now feature shared power, and in that context foreign policy choices must follow two related but distinct axes. ¶ First, those policy choices must strengthen a state’s overall stature and influence (rather than diminish it), leaving the state undertaking the action in a position of equal or greater global standing. This is easier said than done. The proliferation in challenges facing all states has created a need for multiple, simultaneous diplomatic transactions among a broadening cast of actors. Given the nature of today’s threats facing states both large and small, those transactions have never been more frequent and at times overlapping – a reality that requires new agility and synchronization within foreign policy hierarchies. States that are less capable of responding to this new reality may experience diminished political capital and international standing by acting on contemporary threats in isolation or without a full appreciation of the reigning international sentiment. Many observers have highlighted U.S. decision-making in advance of the 2003 Iraq invasion as indicative of just this phenomenon. ¶ Alternatively, states applying a new Smart Power approach to their foreign policy recognize the overlapping need to maintain global standing and stature while seeking resolution of individual policy challenges. We see considerable effort on the part of emerging powers to find just that balance, and I would argue that the United States has also made great strides in that regard since 2009. ¶ Second, Smart Power policy choices must contribute to the strength and resilience of the international system. As noted above, the globalization of contemporary challenges and security threats has augmented the need for effective cooperation among states and other international actors, and placed even greater demands on the global network of international institutions, conferences, frameworks, and groupings in which these challenges are more and more frequently addressed. Given this heightened need for structures to facilitate international collaboration, states are more rarely undertaking foreign policy courses of action that entirely lack a multilateral component, or that feature no interaction with or demands upon the international architecture. As recent American history shows, even states with unilateral tendencies have found themselves returning to the multilateral fold to address aspects of a threat or challenge that simply cannot be addressed effectively alone.

# Case

### 1NC – AT: India Leadership

#### India leadership is worthless.

Ganguly 2/14— (Sumit Ganguly, Columnist at Foreign Policy, “Modi Spent India’s Soft Power—and Got Little in Return“, Foreign Policy, xx-xx-xxxx, Available Online at https://foreignpolicy.com/2021/02/14/modi-india-power-farmer-protest-human-rights/, accessed 10-9-2021, HKR-AR)

The government is also increasingly aggressive toward human rights activists. Another case is that of Stan Swamy, an 83-year-old Jesuit priest who has spent decades working among India’s tribal communities in the state of Jharkhand. Swamy came into the government’s crosshairs because of his activism on behalf of a tribal population facing predatory investors seeking to extract mineral resources from its lands. In early October 2020, India’s National Investigation Agency (NIA) arrested him on charges of terrorism related to an incident in 2018 involving caste-based violence with alleged links to Maoists. Since his arrest, he has been languishing in prison as he awaits trial. In the meantime, his lawyers had to petition multiple courts to enable him to get a sippy cup with a straw as he suffers from Parkinson’s disease.

Academic freedom is also in peril. Foreign academics working on subjects that the government deems to be politically sensitive have long faced difficulties in obtaining research visas to the country. In recent years, earlier governments concerned with the damage that such policies had done to India’s image in foreign academia had relented on its stringent visa rules. However, a directive from the Indian Ministry of Home Affairs, which was promulgated just over a week ago, could put an end to that progress. All virtual meetings between foreign academics and their Indian counterparts dealing with subjects that impinge on India’s national security and unspecified “internal matters” will now require prior approval from the ministry, the entity charged with maintaining domestic law and order.

The government, it seems reasonable to surmise, has made a cynical calculation. Even though it has come under considerable international criticism for a number of its policy choices, it has determined that declining soft power is a small price to pay for carrying through its particular political agenda and consolidating the BJP’s position. Its calculation, it appears, is that given the size of India’s economy, its growing presence in global forums, and its significance in global politics, these criticisms, in due course, will wane and peter out. In the meantime, the government will have rebuilt Indian society around its own ideological vision.

That’s a risky calculation. Even if the Modi administration believes it can withstand international raised eyebrows, it might not fare as well under the glare of its own citizens. In dealing with the farmers’ protests, who harbor genuine misgivings about the recently passed bills in Parliament, it has literally barricaded itself in New Delhi. With cement blocks, concertina wire, and legions of armed police blocking access to the national capital, the government is now dealing with yet another self-inflicted wound.

#### And directly trades off.

Sareen 18 Sareen, Sushant. Sushant Sareen is Senior Fellow at Observer Research Foundation. MA Economics, Delhi School of Economics, University of Delhi BA Economics, Hindu College, University of Delhi "When soft power is not enough | ORF." ORF, 12 Oct. 2018, www.orfonline.org/research/when-soft-power-not-enough-44889.

That soft power is an extremely important component of foreign policy is a no-brainer. But it is, at best, one of the necessary conditions or components of foreign policy. Without hard power (both military and economic) and the ability to exercise “smart power” — a term first coined by the US diplomat Joseph Nye Jr. — soft power alone itself will never be sufficient enough to achieve foreign policy objectives. In India, however, the focus is more on projecting and leveraging soft power i.e. music, films, sports, art, culture, ancient wisdom, civilisational values etc, so as to occupy a place on the global high table. The latest example of this is the production of music videos of Mahatma Gandhi’s favourite bhajan — Vaishnao Janato. Indian missions across the world were instructed to rope in top stars from their respective countries and get them to sing the bhajan as a part of the commemoration of Gandhiji’s 150th birth anniversary. While there is nothing intrinsically wrong with such a project, given the security, strategic and economic challenges that confront Indian foreign policy, should be getting this bhajan sung by foreign stars have been a priority for Indian diplomats? Was the expense this would have incurred — monetary as well as in terms of time and energy of diplomats — justified? What are the takeaways of this somewhat batty idea in terms of even projecting soft power? How many people around the world, and I don’t even mean influential persons, were influenced or swayed by the rendition of this bhajan by foreign singers? How many people other than Indians had even heard this bhajan? How does the bhajan advance any of India’s important or vital interests in other countries? The current dispensation led by Prime Minister Narendra Modi has managed to engage rest of the world and advance India’s relations with almost all the important countries in the world. Where necessary, it has shown steely resolve in upholding Indian interests. To the Prime Minister’s credit, he hasn’t allowed personal slights or ego clashes to distract him or deflect him from pursuing India’s interests. He has ignored Trump mimicking him or other Western countries unfairly denying him a visa before he became Prime Minister. He has certainly injected energy and confidence in how India interacts and engages other countries. And yet, the obsession with soft power and reclaiming India’s stature as a “vishwa guru” (what does that mean anyway?) has frittered away or at least expended energies that could be better utilised elsewhere. The ruling party’s reverence for Deen Dayal Upadhyay is understandable. But let’s face it, there is nothing pathbreaking or revolutionary in what he said. What did he say, other than the typical confused socialistic mumbo-jumbo of his times? Will holding international symposiums, seminars, conferences to propagate D.D. Upadhyay’s thoughts really make any difference? Isn’t it a colossal waste of resources? Similarly, with Yoga, the world recognises and practises yoga not because the Modi government is promoting it or because there is an international Yoga Day, but because it is truly an exceptional form of exercise. Should the government then needlessly be going bonkers in celebrating Yoga Day all over the world? While every government must be permitted or forgiven, its peculiarities and peccadilloes, the Congress party apparatchiks cannot open their mouth without first singing paeans of their first family, and pretentious socialists must take Ram Manohar Lohia or J.P. Narayan’s name to justify their whacky policies and politics. The problem is that overtly focusing on these “events” and the need for showing performance in organising these events has become an end in itself for civil servants. Thus, it is that the High Commissioner in Islamabad, unlike his counterparts from other countries, doesn’t feel that merely meeting a newly (s)elected Prime Minister of Pakistan is enough; he must create a splash by doing the most cliched thing possible — presenting a cricket bat with signatures of the current Indian team. This gesture was apparently supposed to soften the nominee of the Pakistan Army. Seriously? There exists a number of examples of this dumbing down of diplomacy where form has taken precedence and priority over substance. While it is important that India and Indians take pride in their astounding accomplishments in ancient times, it is even more critical to recognise that India today cannot rest on its laurels from the past. India might have been a “vishwa guru” a millennia or more ago, but today, it has more to learn from both, its friends, as well as its enemies and adversaries. And it (India) has very little to teach them. By overdoing soft power, India isn’t going to be able to fix the challenges of today, nor will it be able to exploit and benefit from the opportunities of today and tomorrow. For more than four decades after independence, India exercised soft power but had very little heft in terms of hard power, or in some cases, lesser economic power. India was the defender of all lost causes, an irritant on the international stage that pontificated, moralised, even hectored others. Sure, India was the toast of all the countries that didn’t matter — a bit like Venezuela on steroids (okay, that’s a bit over the top, but you get the drift) which today is the toast of rootless, clueless and even brainless Left-Liberal types who saw Hugo Chavez, the man who ruined his country, as a revolutionary and anti-imperialist icon. India really started being noticed after the economic reforms of 1990-91, the architect of which wasn’t Manmohan Singh, but his boss, P.V. Narasimha Rao. Suddenly the world rediscovered India’s potential. It was the Indian techies and scholars in Western universities and companies that made people in other parts of the world sit up and take notice of this awakening giant. While Pakistan was being noticed for its jihadist policies (a number of Hollywood films had a Pakistani character involved in terrorism or making sinister plans for a WMD attack), India was being feted for its geeks, the industriousness of its people, their commitment to family and education, and their adherence to laws of the lands in which they lived. All this wasn’t the outcome of some publicity campaign or some bureaucracy-driven scheme to promote India. It happened organically and was the result of hard work, perseverance and investment in things that matter, education being the most important one of them. Packaging is important, even necessary, in making an impression in the world. But it is grossly insufficient if the product being sold isn’t good enough, or for that matter useful. Instead of frittering away the gains we have made over the years by behaving as though we have arrived or even acting as a ‘vishwa guru’ and world leader, India (and its leaders) need to realise that it has an enormous distance to travel, many mountains to climb, many seas to traverse, many storms and minefields to avoid and confront before it can claim to be a genuine ‘vishwa guru’. And when that stage comes, India will not need to announce its arrival, other will do it for India. Until then, Indians need to get serious, hunker down and do the hard work needed to rebuild India — fixing our education system, fixing our legal and judicial system, making governance more effective, responsive, sensitive, giving impetus to productive agents in the economy (the entrepreneur, industrialist, farmer), fixing our infrastructure, fixing our crumbling, overstretched cities, its an endless list. Neither bhajans, nor yoga days will do this for India. If anything, shifting focus from the important and urgent things to the cosmetic and perceptual stuff will only make it more difficult for India to make its tryst with its destiny.

### 1NC – Spark

#### Nuke war won’t cause extinction, but it’ll spur political will for meaningful disarmament.

Deudney 18 [Associate Professor of Political Science at Johns Hopkins University. 03/15/2018. “The Great Debate.” The Oxford Handbook of International Security. www.oxfordhandbooks.com, doi:10.1093/oxfordhb/9780198777854.013.22] // Re-Cut Justin

Although nuclear war is the oldest of these technogenic threats to civilization and human survival, and although important steps to restraint, particularly at the end of the Cold War, have been achieved, the nuclear world is increasingly changing in major ways, and in almost entirely dangerous directions. The third “bombs away” phase of the great debate on the nuclear-political question is more consequentially divided than in the first two phases. Even more ominously, most of the momentum lies with the forces that are pulling states toward nuclear-use, and with the radical actors bent on inflicting catastrophic damage on the leading states in the international system, particularly the United States. In contrast, the arms control project, although intellectually vibrant, is largely in retreat on the world political stage. The arms control settlement of the Cold War is unraveling, and the world public is more divided and distracted than ever. With the recent election of President Donald Trump, the United States, which has played such a dominant role in nuclear politics since its scientists invented these fiendish engines, now has an impulsive and uninformed leader, boding ill for nuclear restraint and effective crisis management. Given current trends, it is prudent to assume that sooner or later, and probably sooner, nuclear weapons will again be the used in war. But this bad news may contain a “silver lining” of good news. Unlike a general nuclear war that might have occurred during the Cold War, such a nuclear event now would probably not mark the end of civilization (or of humanity), due to the great reductions in nuclear forces achieved at the end of the Cold War. Furthermore, politics on “the day after” could have immense potential for positive change. The survivors would not be likely to envy the dead, but would surely have a greatly renewed resolution for “never again.” Such an event, completely unpredictable in its particulars, would unambiguously put the nuclear-political question back at the top of the world political agenda. It would unmistakeably remind leading states of their vulnerability It might also trigger more robust efforts to achieve the global regulation of nuclear capability. Like the bombings of Hiroshima and Nagasaki that did so much to catalyze the elevated concern for nuclear security in the early Cold War, and like the experience “at the brink” in the Cuban Missile Crisis of 1962, the now bubbling nuclear caldron holds the possibility of inaugurating a major period of institutional innovation and adjustment toward a fully “bombs away” future.

#### Counterforcing ensure only a few million die.

Mueller 9 [Woody Mueller, Chair of National Security Studies, Professor of Political Science at Ohio State University, Cato Senior Fellow, 2009 “Atomic Obsession: Nuclear Alarmism from Hiroshima to Al-Qaeda,” *Google Books*, October 5th, p. 8] // Re-Cut Justin

To begin to approach a condition that can credibly justify applying such extreme characterizations as societal annihilation, a full-out attack with hundreds, probably thousands, of thermonuclear bombs would be required. Even in such extreme cases, the area actually devastated by the bombs' blast and thermal pulse effective **would be limited**: 2,000 1-MT explosions with a destructive radius of 5 miles each would directly demolish **less than 5 percent** of the territory of the United States, for example. Obviously, if major population centers were targeted, this sort of attack could inflict massive casualties. Back in cold war days, when such devastating events sometimes seemed uncomfortably likely, a **number of studies** were conducted to estimate the consequences of massive thermonuclear attacks. One of the **most prominent** of these considered several probabilities. The most likely scenario--one that could be perhaps considered at least to begin to approach the rational--was a "counterforce" strike in which well over 1,000 thermonuclear weapons would be targeted at America's ballistic missile silos, strategic airfields, and nuclear submarine bases in an effort to destroy the country’s strategic ability to retaliate. Since the attack **would not** directly **target population centers**, most of the ensuing deaths would be from radioactive fallout, and the study estimates that from 2 to 20 million, depending mostly on wind, weather, and sheltering, would perish during the first month.15 That sort of damage, which would kill less than 10 percent of the population, might or might not be enough to trigger words like “annihilation.”

#### Small arsenals and tests prove no extinction

Frankel et al. 15 [Dr. Michael J. Frankel is a senior scientist at Penn State University’s Applied Research Laboratory, where he focuses on nuclear treaty verification technologies, is one of the nation’s leading experts on the effects of nuclear weapons, executive director of the Congressional Commission to Assess the Threat to the United States from Electromagnetic Pulse Attack, led development of fifteen-year global nuclear threat technology projections and infrastructure vulnerability assessments; Dr. James Scouras is a national security studies fellow at the Johns Hopkins University Applied Physics Laboratory and the former chief scientist of DTRA’s Advanced Systems and Concepts Office; Dr. George W. Ullrich is chief technology officer at Schafer Corporation and formerly senior vice president at Science Applications International Corporation (SAIC), currently serves as a special advisor to the USSTRATCOM Strategic Advisory Group’s Science and Technology Panel and is a member of the Air Force Scientific Advisory Board. 04-15-15. “The Uncertain Consequences of Nuclear Weapons Use.” The Johns Hopkins University Applied Physics Laboratory. DTIC. <https://apps.dtic.mil/dtic/tr/fulltext/u2/a618999.pdf>] Justin

Scientific work based on real data, rather than models, also cast additional doubt on the basic premise. Interestingly, publication of several contradictory papers describing experimental observations actually predated Schell’s work. In 1973, nine years before publication of The Fate of the Earth, a published report failed to find any ozone depletion during the peak period of atmospheric nuclear testing.26 In another work published in 1976, attempts to measure the actual ozone depletion associated with Russian megaton-class detonations and Chinese nuclear tests were also unable to detect any significant effect.27 At present, with the reduced arsenals and a perceived low likelihood of a large-scale exchange on the scale of Cold War planning scenarios, official concern over nuclear ozone depletion has essentially fallen off the table. Yet continuing scientific studies by a small dedicated community of researchers suggest the potential for dire consequences, even for relatively small regional nuclear wars involving Hiroshimasize bombs. Nuclear Winter The possibility of catastrophic climate changes came as yet another surprise to Department of Defense scientists. In 1982, Crutzen and Birks highlighted the potential effects of high-altitude smoke on climate,29 and in 1983, a research team consisting of Turco, Toon, Ackerman, Pollack, and Sagan (referred to as TTAPS) suggested that a five-thousand-megaton strategic exchange of weapons between the United States and the Soviet Union could effectively spell national suicide for both belligerents.30 They argued that a massive nuclear exchange between the United States and the Soviet Union would inject copious amounts of soot, generated by massive firestorms such as those witnessed in Hiroshima, into the stratosphere where it might reside indefinitely. Additionally, the soot would be accompanied by dust swept up in the rising thermal column of the nuclear fireball. The combination of dust and soot could scatter and absorb sunlight to such an extent that much of Earth would be engulfed in darkness sufficient to cease photosynthesis. Unable to sustain agriculture for an extended period of time, much of the planet’s population would be doomed to perish, and—in its most extreme rendition—humanity would follow the dinosaurs into extinction and by much the same mechanism.31 Subsequent refinements by the TTAPS authors, such as an extension of computational efforts to three-dimensional models, continued to produce qualitatively similar results. The TTAPS results were severely criticized, and a lively debate ensued between passionate critics of and defenders of the analysis. Some of the technical objections critics raised included the TTAPS team’s neglect of the potentially significant role of clouds;32 lack of an accurate model of coagulation and rainout;33 inaccurate capture of feedback mechanisms;34 “fudge factor” fits of micrometer-scale physical processes assumed to hold constant for changed atmospheric chemistry conditions and uniformly averaged on a grid scale of hundreds of kilometers;35 the dynamics of firestorm formation, rise, and smoke injection;36 and estimates of the optical properties and total amount of fuel available to generate the assumed smoke loading. In particular, more careful analysis of the range of uncertainties associated with the widely varying published estimates of fuel quantities and properties suggested a possible range of outcomes encompassing much milder impacts than anything predicted by TTAPS.37 Aside from the technical issues critics raised, the five-thousand-megaton baseline exchange scenario TTAPS envisioned was rendered obsolete when the major powers decreased both their nuclear arsenals and the average yield of the remaining weapons. With the demise of the Soviet Union, the nuclear winter issue essentially fell off the radar screen for Department of Defense scientists, which is not to say that it completely disappeared from the scientific literature. In the last few years, a number of analysts, including some of the original TTAPS authors, suggested that even a “modest” regional exchange of nuclear weapons—one hundred explosions of fifteenkiloton devices in an Indian–Pakistani exchange scenario—might yet produce significant worldwide climate effects, if not the full-blown “winter.”38 However, such concerns have failed to gain much traction in Department of Defense circles.

#### Empirics – we’ve nuked ourselves 2,000 times and the largest event was only 1/1000th as powerful as natural disasters

Eken 17 [Mattias Eken - PhD student in Modern History at the University of St Andrews. “The understandable fear of nuclear weapons doesn’t match reality”. 3/14/17. <https://theconversation.com/the-understandable-fear-of-nuclear-weapons-doesnt-match-reality-73563>] // Re-Cut Justin

Nuclear weapons are unambiguously the most destructive weapons on the planet. Pound for pound, they are the most lethal weapons ever created, capable of killing millions. Millions live in fear that these weapons will be used again, with all the potential consequences. However, the destructive power of these weapons **has been vastly exaggerated**, albeit for good reasons. Public fear of nuclear weapons being used in anger, whether by terrorists or nuclear-armed nations, has risen once again in recent years. **This is** in no small part **thanks to the current political climate** between states such as the US and Russia and the various nuclear tests conducted by North Korea. But whenever we talk about nuclear weapons, it’s easy to get carried away with doomsday scenarios and apocalyptic language. As the historian Spencer Weart once argued: “**You say ‘nuclear bomb’ and everybody immediately thinks of the end of the world.**” Yet the means necessary to produce a nuclear bomb, let alone set one off, remain incredibly complex – and while the damage that would be done if someone did in fact detonate one might be very serious indeed, **the chances that it would mean “the end of the world” are vanishingly small**. In his 2013 book Command and Control, the author Eric Schlosser tried to scare us into perpetual fear of nuclear weapons by recounting stories of near misses and accidents involving nuclear weapons. One such event, the 1980 Damascus incident, saw a Titan II intercontinental ballistic missile explode at its remote Arkansas launch facility after a maintenance crew accidentally ruptured its fuel tank. Although the warhead involved in the incident didn’t detonate, Schlosser claims that “if it had, much of Arkansas would be gone”. But that’s not quite the case. The nine-megaton thermonuclear warhead on the **Titan II** missile had a blast radius of 10km, or an area of about 315km². The state of Arkansas spreads over 133,733km², meaning the weapon **would have caused destruction across 0.2% of the state.** That would naturally have been a terrible outcome, but certainly not the catastrophe that Schlosser evokes. Claims exaggerating the effects of nuclear weapons have become commonplace, especially after the September 11 terrorist attacks in 2001. In the early War on Terror years, Richard Lugar, a former US senator and chair of the Senate Foreign Relations Committee, argued that terrorists armed with nuclear weapons pose an existential threat to the Western way of life. What he failed to explain is how. It is by no means certain that a single nuclear detonation **(or even several)** would do away with our current way of life. Indeed, **we’re still here despite having nuked our own planet more than 2,000 times** – a tally expressed beautifully in this video by Japanese artist Isao Hashimoto). While the 1963 Limited Test Ban Treaty forced nuclear tests underground, **around 500 of** all **the nuclear weapons detonated were unleashed in the Earth’s atmosphere**. This includes the world’s largest ever nuclear detonation, the 57-megaton bomb known as **Tsar Bomba**, detonated by the Soviet Union on October 30 1961. Tsar Bomba was more than 3,000 times more powerful than the bomb dropped on Hiroshima. That is immense destructive power – but as one physicist explained, **it’s only “one-thousandth the force of an earthquake, one-thousandth the force of a hurricane”.** The Damascus incident proved how incredibly hard it is to set off a nuclear bomb and the limited effect that would have come from just one warhead detonating. Despite this, some scientists have controversially argued that an even limited all-out nuclear war might lead to a so-called nuclear winter, since the smoke and debris created by very large bombs could block out the sun’s rays for a considerable amount of time. To inflict such ecological societal annihilation with weapons alone, we would have to detonate hundreds if not thousands of thermonuclear devices in a short time. Even in such extreme conditions, the area actually devastated by the bombs would be limited: for example, **2,000 one-megaton explosions with a destructive radius of five miles each would directly destroy less than 5% of the territory of the US**. Of course, if the effects of nuclear weapons have been greatly exaggerated, there is a very good reason: since these weapons are indeed extremely dangerous, any posturing and exaggerating which intensifies our fear of them makes us less likely to use them. But it’s important, however, to understand why people have come to fear these weapons the way we do. After all, nuclear weapons are here to stay; they can’t be “un-invented”. If we want to live with them and mitigate the very real risks they pose, we must be honest about what those risks really are. Overegging them to frighten ourselves more than we need to keeps nobody safe.

#### Isolated island populations repopulate after radiation and nuclear winter – bunkers and submarines.

Turchin and Green 18 [Alexey Turchin – Scientist for the Foundation Science for Life Extension in Moscow, Russia, Founder of Digital Immortality Now, author of several books and articles on the topics of existential risks and life extension. Brian Patrick Green – Director of technology ethics at the Markkula Center for Applied Ethics, teaches AI ethics in the Graduate School of Engineering at Santa Clara University. <MKIM> “Islands as refuges for surviving global catastrophes”. September 2018. DOA: 7/20/19. <https://www.emerald.com/insight/content/doi/10.1108/FS-04-2018-0031/full/html?fullSc=1&mbSc=1&fullSc=1>] // Re-Cut Justin

Different types of possible catastrophes suggest different scenarios for how survival could happen on an island. What is important is that the island should have properties which protect against the specific dangers of particular global catastrophic risks. Specifically, different islands will provide protection against different risks, and their natural diversity will contribute to a higher total level of protection: **Quarantined island survives pandemic**. An island could impose effective quarantine if it is sufficiently remote and simultaneously able to protect itself, possibly using military ships and air defense. **Far northern aboriginal people survive an ice age**. Many far northern people have adapted to survive in extremely cold and dangerous environments, and under the right circumstances could potentially survive the return of an ice age. However, their cultures are endangered by globalization. If these people become dependent on the products of modern civilization, such as rifles and motor boats, and lose their native survival skills, then their likelihood of surviving the collapse of the outside world would decrease. Therefore, preservation of their survival skills may be important as a defense against the risks connected with **extreme cooling**. Remote polar island with high mountains survives brief global warming of median surface temperatures, up to 50˚C. There is a theory that the climates of planets similar to the Earth could have several semi-stable temperature levels (Popp et al., 2016). If so, because of climate change, the Earth could transition to a second semi-stable state with a median global temperature of around 330 K, about 60˚C, or about 45˚C above current global mean temperatures. But even in this climate, **some regions of Earth could still be survivable for humans**, such as the Himalayan plateau at elevations above 4,000 m, but below 6,000 (where oxygen deficiency becomes a problem), or on polar islands with mountains (however, global warming affects polar regions more than equatorial regions, and northern island will experience more effects of climate change, including thawing permafrost and possible landslides because of wetter weather). In the tropics, the combination of increased humidity and temperature may increase the wet bulb temperature above 36˚C, especially on islands, where sea moisture is readily available. In such conditions, proper human perspiration becomes impossible (Sherwood and Huber, 2010), and there will likely be increased mortality and morbidity because of tropical diseases. If temperatures later returned to normal – either naturally or through climate engineering – **the rest of the Earth could be repopulated**. ‘‘Swiss Family Robinsons’’ survive on a tropical island, unnoticed by a military robot ‘‘mutiny’’. Most AI researchers ignore medium-term AI risks, which are neither near-term risks, like unemployment, nor remote risks, like AI superintelligence. But a large drone army – if one were produced – could receive a wrong command or be infected by a computer virus, leading it to attack people indiscriminately. Remote islands without robots could provide protection in this case, allowing survival until such a drone army ran out of batteries, fuel, ammunition or other supplies: Primitive tribe survives civilizational collapse. The inhabitants of **North Sentinel Island**, near the Andaman Islands in the Indian Ocean, are hostile and uncontacted. **The Sentinelese survived the 2004 Indian Ocean tsunami apparently unaffected** (Voanews, 2009), and if the rest of humanity disappear, **they might well continue their existence without change.** Tropical Island survives extreme global nuclear winter and glaciation event. Were a **nuclear**, bolide impactor or volcanic “**winter**” scenario to unfold, these islands would remain surrounded by Warm Ocean, and local volcanism or other energy sources might provide heat, energy and food. Such island refuges may have helped life on Earth survive during the **“Snowball Earth”** event in Earth’s distant past (Hoffman et al., 1998). Remote island base for project “Yellow submarine”. Some catastrophic risks such as a gamma ray burst, a global nuclear war with high radiological contamination or multiple pandemics might be best survived **underwater in nuclear submarines** (Turchin and Green, 2017). However, after a catastrophe, the submarine with survivors would eventually need a place to dock, and an island with some prepared amenities would be a reasonable starting point for rebuilding civilization. Bunker on remote island. For risks which include multiple or complex catastrophes, such as a bolide impact, extreme volcanism, tsunamis, multiple pandemics and nuclear war with radiological contamination, **island refuges could be strengthened with bunkers**. Richard Branson survived hurricane Irma on his own island in 2017 by seeking refuge in his concrete wine cellar (Clifford, 2017). Bunkers on islands would have higher survivability compared to those close to population centers, as they will be neither a military target nor as accessible to looters or unintentionally dangerous (e.g. infected) refugees. These bunkers could potentially be connected to water sources by underwater pipes, and passages could provide cooling, access and even oxygen and food sources.

#### No nuke winter – conversion to hydrophilic black carbon eliminates the entire climate effect---and that’s an overestimate.

Reisner et al. 18 [Jon Reisner, atmospheric researcher at LANL Climate and Atmospheric Sciences; Gennaro D'Angelo, UKAFF Fellow and member of the Astrophysics Group at the School of Physics of the University of Exeter, Research Scientist with the Carl Sagan Center at the SETI Institute, currently works for the Los Alamos National Laboratory Theoretical Division; Eunmo Koo, scientist in the Computational Earth Science Group at LANL, recipient of the NNSA Defense Program Stockpile Stewardship Program award of excellence; Wesley Even, R&D Scientist at CCS-2, LANL, specialist in computational physics and astrophysics; Matthew Hecht is a member of the Computational Physics and Methods Group in the Climate, Ocean and Sea Ice Modelling program (COSIM) at LANL, who works on modeling high-latitude atmospheric effects in climate models as part of the HiLAT project; Elizabeth Hunke, Lead developer for the Los Alamos Sea Ice Model, Deputy Group Leader of the T-3 Fluid Dynamics and Solid Mechanics Group at LANL; Darin Comeau, Scientist at the CCS-2 COSIM program, specializes in high dimensional data analysis, statistical and predictive modeling, and uncertainty quantification, with particular applications to climate science; Randall Bos is a research scientist at LANL specializing in urban EMP simulations; James Cooley is a Group Leader within CCS-2. 03/16/2018. “Climate Impact of a Regional Nuclear Weapons Exchange: An Improved Assessment Based On Detailed Source Calculations.” Journal of Geophysical Research: Atmospheres, vol. 123, no. 5, pp. 2752–2772] // Re-Cut Justin

\*BC = Black Carbon

The no-rubble simulation produces a significantly more intense fire, with more fire spread, and consequently a significantly stronger plume with larger amounts of BC reaching into the upper atmosphere than the simulation with rubble, illustrated in Figure 5. While the no-rubble simulation **represents the worst-case scenario** involving vigorous fire activity, **only a relatively small amount of carbon makes its way into the stratosphere** during the course of the simulation. But while small compared to the surface BC mass, stratospheric BC amounts from the current simulations are significantly higher than what would be expected from burning vegetation such as trees (Heilman et al., 2014), e.g., the higher energy density of the building fuels and the initial fluence from the weapon produce an intense response within HIGRAD with initial updrafts of order 100 m/s in the lower troposphere. Or, in comparison to a mass fire, wildfires will burn only a small amount of fuel in the corresponding time period (roughly 10 minutes) that a nuclear weapon fluence can effectively ignite a large area of fuel producing an impressive atmospheric response. Figure 6 shows vertical profiles of BC multiplied by 100 (number of cities involved in the exchange) from the two simulations. The total amount of BC produced is in line with previous estimates (about 3.69 Tg from no-rubble simulation); however, the majority of BC resides **below the stratosphere** (3.46 Tg below 12 km) and can be **readily impacted by scavenging from precipitation** either via pyro-cumulonimbus produced by the fire itself (not modeled) or other synoptic weather systems. While the impact on climate of these more realistic profiles will be explored in the next section, it should be mentioned that **these estimates are** still **at the high end**, considering the inherent simplifications in the combustion model that lead to **overestimating BC production**. 3.3 Climate Results Long-term climatic effects critically depend on the initial injection height of the soot, with larger quantities reaching the upper troposphere/lower stratosphere inducing a greater cooling impact because of longer residence times (Robock et al., 2007a). Absorption of solar radiation by the BC aerosol and its subsequent radiative cooling tends to heat the surrounding air, driving an initial upward diffusion of the soot plumes, an effect that depends on the initial aerosol concentrations. **Mixing and sedimentation** tend to **reduce this process**, and low altitude emissions are also significantly impacted by precipitation if aging of the BC aerosol occurs on sufficiently rapid timescales. But once at stratospheric altitudes, aerosol dilution via coagulation is hindered by low particulate concentrations (e.g., Robock et al., 2007a) and lofting to much higher altitudes is inhibited by gravitational settling in the low-density air (Stenke et al., 2013), resulting in more stable BC concentrations over long times. Of the initial BC mass released in the atmosphere, most of which is emitted below 9 km, **70% rains out within the first month** and 78%, or about 2.9 Tg, is removed within the first two months (Figure 7, solid line), with the remainder (about 0.8 Tg, dashed line) being transported above about 12 km (200 hPa) within the first week. This outcome differs from the findings of, e.g., Stenke et al. (2013, their high BC-load cases) and Mills et al. (2014), who found that most of the BC mass (between 60 and 70%) is lifted in the stratosphere within the first couple of weeks. This can also be seen in Figure 8 (red lines) and in Figure 9, which include results from our calculation with the initial BC distribution from Mills et al. (2014). In that case, only 30% of the initial BC mass rains out in the troposphere during the first two weeks after the exchange, with the remainder rising to the stratosphere. In the study of Mills et al. (2008) this percentage is somewhat smaller, about 20%, and smaller still in the experiments of Robock et al. (2007a) in which the soot is initially emitted in the upper troposphere or higher. In Figure 7, the e-folding timescale for the removal of tropospheric soot, here interpreted as the time required for an initial drop of a factor e, is about one week. This result compares favorably with the “LT” experiment of Robock et al. (2007a), considering 5 Tg of BC released in the lower troposphere, in which 50% of the aerosols are removed within two weeks. By contrast, the initial e-folding timescale for the removal of stratospheric soot in Figure 8 is about 4.2 years (blue solid line), compared to about 8.4 years for the calculation using Mills et al. (2014) initial BC emission (red solid line). The removal timescale from our forced ensemble simulations is close to those obtained by Mills et al. (2008) in their 1 Tg experiment, by Robock et al. (2007a) in their experiment “UT 1 Tg”, and © 2018 American Geophysical Union. All rights reserved. by Stenke et al. (2013) in their experiment “Exp1”, in all of which 1 Tg of soot was emitted in the atmosphere in the aftermath of the exchange. Notably, the e-folding timescale for the decline of the BC mass in Figure 8 (blue solid line) is also close to the value of about 4 years quoted by Pausata et al. (2016) for their long-term “intermediate” scenario. In that scenario, which is also based on 5 Tg of soot initially distributed as in Mills et al. (2014), the factor-of2 shorter residence time of the aerosols is caused by particle growth via coagulation of BC with organic carbon. Figure 9 shows the BC mass-mixing ratio, horizontally averaged over the globe, as a function of atmospheric pressure (height) and time. The BC distributions used in our simulations imply that the upward transport of particles is substantially less efficient compared to the case in which 5 Tg of BC is directly injected into the upper troposphere. The semiannual cycle of lofting and sinking of the aerosols is associated with atmospheric heating and cooling during the solstice in each hemisphere (Robock et al., 2007a). During the first year, the oscillation amplitude in our forced ensemble simulations is particularly large during the summer solstice, compared to that during the winter solstice (see bottom panel of Figure 9), because of the higher soot concentrations in the Northern Hemisphere, as can be seen in Figure 11 (see also left panel of Figure 12). Comparing the top and bottom panels of Figure 9, the BC reaches the highest altitudes during the first year in both cases, but the concentrations at 0.1 hPa in the top panel can be 200 times as large. Qualitatively, the difference can be understood in terms of the air temperature increase caused by BC radiation emission, which is several tens of kelvin degrees in the simulations of Robock et al. (2007a, see their Figure 4), Mills et al. (2008, see their Figure 5), Stenke et al. (2013, see high-load cases in their Figure 4), Mills et al. (2014, see their Figure 7), and Pausata et al. (2016, see one-day emission cases in their Figure 1), due to high BC concentrations, but it amounts to only about 10 K in our forced ensemble simulations, as illustrated in Figure 10. Results similar to those presented in Figure 10 were obtained from the experiment “Exp1” performed by Stenke et al. (2013, see their Figure 4). **In that scenario as well, somewhat less than 1 Tg of BC remained in the atmosphere after the initial rainout**. As mentioned before, the BC aerosol that remains in the atmosphere, lifted to stratospheric heights by the rising soot plumes, undergoes sedimentation over a timescale of several years (Figures 8 and 9). This mass represents the effective amount of BC that can force climatic changes over multi-year timescales. In the forced ensemble simulations, it is about 0.8 Tg after the initial rainout, whereas it is about 3.4 Tg in the simulation with an initial soot distribution as in Mills et al. (2014). Our more realistic source simulation involves the worstcase assumption of no-rubble (along with other assumptions) and hence serves as an upper bound for the impact on climate. As mentioned above and further discussed below, our scenario induces perturbations on the climate system similar to those found in previous studies in which the climatic response was driven by roughly 1 Tg of soot rising to stratospheric heights following the exchange. Figure 11 illustrates the vertically integrated mass-mixing ratio of BC over the globe, at various times after the exchange for the simulation using the initial BC distribution of Mills et al. (2014, upper panels) and as an average from the forced ensemble members (lower panels). All simulations predict enhanced concentrations at high latitudes during the first year after the exchange. In the cases shown in the top panels, however, these high concentrations persist for several years (see also Figure 1 of Mills et al., 2014), whereas the forced ensemble simulations indicate that the BC concentration starts to decline after the first year. In fact, in the simulation represented in the top panels, mass-mixing ratios larger than about 1 kg of BC © 2018 American Geophysical Union. All rights reserved. per Tg of air persist for well over 10 years after the exchange, whereas they only last for 3 years in our forced simulations (compare top and middle panels of Figure 9). After the first year, values drop below 3 kg BC/Tg air, whereas it takes about 8 years to reach these values in the simulation in the top panels (see also Robock et al., 2007a). Over crop-producing, midlatitude regions in the Northern Hemisphere, the BC loading is reduced from more than 0.8 kg BC/Tg air in the simulation in the top panels to 0.2-0.4 kg BC/Tg air in our forced simulations (see middle and right panels). The more rapid clearing of the atmosphere in the forced ensemble is also signaled by the soot optical depth in the visible radiation spectrum, which drops below values of 0.03 toward the second half of the first year at mid latitudes in the Northern Hemisphere, and everywhere on the globe after about 2.5 years (without never attaining this value in the Southern Hemisphere). In contrast, the soot optical depth in the calculation shown in the top panels of Figure 11 becomes smaller than 0.03 everywhere only after about 10 years. The two cases show a similar tendency, in that the BC optical depth is typically lower between latitudes 30º S-30º N than it is at other latitudes. This behavior is associated to the persistence of stratospheric soot toward high-latitudes and the Arctic/Antarctic regions, as illustrated by the zonally-averaged, column-integrated mass-mixing ratio of the BC in Figure 12 for both the forced ensemble simulations (left panel) and the simulation with an initial 5 Tg BC emission in the upper troposphere (right panel). The spread in the globally averaged (near) surface temperature of the atmosphere, from the control (left panel) and forced (right panel) ensembles, is displayed in Figure 13. For each month, the plots show the largest variations (i.e., maximum and minimum values), within each ensemble of values obtained for that month, relative to the mean value of that month. The plot also shows yearly-averaged data (thinner lines). The spread is comparable in the control and forced ensembles, with average values calculated over the 33-years run length of 0.4-0.5 K. This spread is also similar to the internal variability of the globally averaged surface temperature quoted for the NCAR Large Ensemble Community Project (Kay et al., 2015). These results imply that surface air temperature differences, between forced and control simulations, which lie within the spread may not be distinguished from effects due to internal variability of the two simulation ensembles. Figure 14 shows the difference in the globally averaged surface temperature of the atmosphere (top panel), net solar radiation flux at surface (middle panel), and precipitation rate (bottom panel), computed as the (forced minus control) difference in ensemble mean values. The sum of standard deviations from each ensemble is shaded. Differences are qualitatively significant over the first few years, when the anomalies lie near or outside the total standard deviation. Inside the shaded region, differences may not be distinguished from those arising from the internal variability of one or both ensembles. The surface solar flux (middle panel) is the quantity that appears most affected by the BC emission, with qualitatively significant differences persisting for about 5 years. The precipitation rate (bottom panel) is instead affected only at the very beginning of the simulations. The red lines in all panels show the results from the simulation applying the initial BC distribution of Mills et al. (2014), where the period of significant impact is much longer owing to the higher altitude of the initial soot distribution that results in longer residence times of the BC aerosol in the atmosphere. When yearly averages of the same quantities are performed over the IndiaPakistan region, the differences in ensemble mean values lie within the total standard deviations of the two ensembles. The results in Figure 14 can also be compared to the outcomes of other previous studies. In their experiment “UT 1 Tg”, Robock et al. (2007a) found that, when only 1 Tg of soot © 2018 American Geophysical Union. All rights reserved. remains in the atmosphere after the initial rainout, temperature and precipitation anomalies are about 20% of those obtained from their standard 5 Tg BC emission case. Therefore, the largest differences they observed, during the first few years after the exchange, were about - 0.3 K and -0.06 mm/day, respectively, comparable to the anomalies in the top and bottom panels of Figure 14. Their standard 5 Tg emission case resulted in a solar radiation flux anomaly at surface of -12 W/m2 after the second year (see their Figure 3), between 5 and 6 time as large as the corresponding anomalies from our ensembles shown in the middle panel. In their experiment “Exp1”, Stenke et al. (2013) reported global mean surface temperature anomalies not exceeding about 0.3 K in magnitude and precipitation anomalies hovering around -0.07 mm/day during the first few years, again consistent with the results of Figure 14. In a recent study, Pausata et al. (2016) considered the effects of an admixture of BC and organic carbon aerosols, both of which would be emitted in the atmosphere in the aftermath of a nuclear exchange. In particular, they concentrated on the effects of coagulation of these aerosol species and examined their climatic impacts. The initial BC distribution was as in Mills et al. (2014), although the soot burden was released in the atmosphere over time periods of various lengths. Most relevant to our and other previous work are their one-day emission scenarios. They found that, during the first year, the largest values of the atmospheric surface temperature anomalies ranged between about -0.5 and -1.3 K, those of the sea surface temperature anomalies ranged between -0.2 and -0.55 K, and those of the precipitation anomalies varied between -0.15 and -0.2 mm/day. All these ranges are compatible with our results shown in Figure 14 as red lines and with those of Mills et al. (2014, see their Figures 3 and 6). As already mentioned in Section 2.3, the net solar flux anomalies at surface are also consistent. This overall agreement suggests that the **inclusion of organic carbon aerosols, and** ensuing **coagulation** with BC, **should not dramatically alter the climatic effects** resulting from our forced ensemble simulations. Moreover, aerosol growth would likely **shorten the residence time of the BC particulate in the atmosphere** (Pausata et al., 2016), possibly **reducing the duration of these effects.**

#### Analysis of historical volcano activity disproves nuclear winter – an eruption 5 times the size of a regional nuclear exchange dissipated in just 2 years

Reisner et al. 18 [Jon Reisner, atmospheric researcher at LANL Climate and Atmospheric Sciences; Gennaro D'Angelo, UKAFF Fellow and member of the Astrophysics Group at the School of Physics of the University of Exeter, Research Scientist with the Carl Sagan Center at the SETI Institute, currently works for the Los Alamos National Laboratory Theoretical Division; Eunmo Koo, scientist in the Computational Earth Science Group at LANL, recipient of the NNSA Defense Program Stockpile Stewardship Program award of excellence; Wesley Even, R&D Scientist at CCS-2, LANL, specialist in computational physics and astrophysics; Matthew Hecht is a member of the Computational Physics and Methods Group in the Climate, Ocean and Sea Ice Modelling program (COSIM) at LANL, who works on modeling high-latitude atmospheric effects in climate models as part of the HiLAT project; Elizabeth Hunke, Lead developer for the Los Alamos Sea Ice Model, Deputy Group Leader of the T-3 Fluid Dynamics and Solid Mechanics Group at LANL; Darin Comeau, Scientist at the CCS-2 COSIM program, specializes in high dimensional data analysis, statistical and predictive modeling, and uncertainty quantification, with particular applications to climate science; Randall Bos is a research scientist at LANL specializing in urban EMP simulations; James Cooley is a Group Leader within CCS-2. 03/16/2018. “Climate Impact of a Regional Nuclear Weapons Exchange: An Improved Assessment Based On Detailed Source Calculations.” Journal of Geophysical Research: Atmospheres, vol. 123, no. 5, pp. 2752–2772] // Re-Cut Justin

To quantitatively account for natural and forced variability in the climate system, we created two ensembles, one for the natural, unforced system and a second ensemble using a range of realistic vertical profiles for the BC aerosol forcing, consistent with our detailed fire simulation. The control ensemble was generated using small atmospheric temperature perturbations (Kay et al., 2015). Notably, the overall spread of anomalies in both ensembles is very similar. These ensembles were then used to create “super ensembles” using a statistical emulator, which allows a robust statistical comparison of our simulated results with and without the carbon forcing. Our primary result is the **decreased impact on global climate indices**, such as global average surface temperature and precipitation, relative to standard scenarios considered in previous work (e.g., Robock et al., 2007a; Stenke et al., 2013; Mills et al., 2014; Pausata et al., 2016). With our finding of **substantially less BC aerosol being lofted to stratospheric heights** (e.g., over a factor of four less than in most of the scenarios considered by previous studies), these globally averaged anomalies drop to **statistically insignificant levels** after the first several years (Figures 14 and 16). Our results are generally comparable to those predicted by other studies that considered exchange scenarios in which only about 1 Tg of soot is emitted in the upper troposphere (Robock et al., 2007a; Mills et al., 2008; Stenke et al., 2013). There are more subtle suggestions of regional effects, notably in the extent of the region over which sea surface temperature differences between ensembles remain significant in the final years of simulation (Figure 17). Further work is required to adequately analyze these and other potential regional effects. Historical analysis of several large volcanic eruptions and a recent large fire also supports this result. For example, Timmreck et al. (2010) claim that nonlinear aerosol effects of the Toba Tuff eruption 74,000 years ago helped **limit significant global cooling** impacts to a **two-year time period** and that any cooling beyond this time period could be due to other effects. It should be noted that this eruption was estimated to have produced **106 Tg** of ash and comparable amounts of other gases, such as sulfur dioxide (SO2), while the estimated amount of soot produced by a regional exchange is on the order of **10 Tg**, or **5 orders of magnitude smaller than the ash** (not including gases) **produced by the Toba eruption**. Noting that a nuclear exchange is not identical to volcanic events, it has been asserted that BC particles produced by fires should have a **greater impact on absorbing solar radiation** than even has the significantly larger amounts of ash and various gases produced by large eruptions (e.g., Robock and Toon 2010). Likewise, recent work in analyzing BC emissions from large fires suggests that in such fires, similar to large volcanic eruptions, **coating of soot particles with other particles** in convective eddies **tends to increase their size and hence increase their subsequent rainout** (China et al., 2013) before they can reach the stratosphere. In fact, the recent study of Pausata et al. (2016) found that growth of BC aerosol via coagulation with organic carbon significantly reduce the particles’ lifetime in the atmosphere

#### Nuclear war prevents AI research.

Seth Baum & Anthony Barrett 18. Global Catastrophic Risk Institute. 2018. “A Model for the Impacts of Nuclear War.” SSRN Electronic Journal. Crossref, doi:10.2139/ssrn.3155983. // Re-Cut Justin

Another link between nuclear war and other major catastrophes comes from the potential for general malfunction of society shifting work on risky technologies such as artificial intelligence, molecular nanotechnology, and biotechnology. The simplest effect would be for the general malfunction of society to halt work on these technologies. In most cases, this would reduce the risk of harm caused by those technologies.

#### AI leads to extinction.

Alan Rominger 16, PhD Candidate in Nuclear Engineering at North Carolina State University, Software Engineer at Red Hat, Former Nuclear Engineering Science Laboratory Synthesis Intern at Oak Ridge National Laboratory, BS in Nuclear Engineering from North Carolina State University, “The Extreme Version of the Technological Singularity”, Medium 11-6, [https://medium.com/@AlanSE/the-extreme-version-of-the-technological-singularity-75608898eae5 //](https://medium.com/@AlanSE/the-extreme-version-of-the-technological-singularity-75608898eae5%20//) Re-Cut Justin

Let’s reformulate that story of the AI paperclip maker.

1. We design an AI to optimize paperclip production
2. The AI improves up to the ability of self-enhancement
3. AI’s pace of improvement becomes self-reinforcing, becomes god-like
4. Time ends.
5. Something else begins?

There are many valid-sounding possibilities for the 5th step. The AI creates new baby universes from black holes. Maybe not exactly in this way. Perhaps the baby universes have to be created in particle accelerators, which is obvious to the AI after it solves the string theory problems of how our universe is folded. There’s also no guarantee that whatever next step is involved can be taken without destroying the universe that we live in. Go ahead, imagine that the particle accelerators create a new universe but trigger the vacuum instability in our own. In this case, it’s entirely possible that the AI carefully plans and coordinates the death of our universe. For a simplistic example, let’s say that after lifting the 10 nearest stars, the AI realizes the most efficient ways to stimulate the curved dimensions on the Planck scale to create baby universes. Next, it conducts an optimization study to balance the number of times this operation can be performed with gains from further expansion. Since its plans begin to largely max-out once the depth of the galactic disk is exploited, I will assume that its go-point is somewhere around the colonization of half of the milky way. At this point, a coordinated experiment is conducted throughout all of the space. Each of these events both create a baby universe and trigger an event in our own universe which destroys the meta-stable vacuum that we live in. Billions of new universes are created, while the space-time that we live in begins to unravel in a light-speed front emanating out from each of the genesis points. There is an interesting energy-management concept that comes from this. A common problem when considering exponential galactic growth of star-lifted fusion power is that the empty space begins to get cooked from the high temperature radiated out into space. If the end-time of the universe was known in advance, this wouldn’t be a problem because one star would not absorb the radiation from the neighbor star until the light had time to propagate that distance at the speed of light. That means that the radiators can pump out high-temperature radiation into nice and normal 4-Kelvin space without concerns of boiling all the industrial machinery being used. Industrial activities would be tightly restricted until the “prepare-point”, when an energy bonanza happens so that the maximum number of baby-universe produces can be built. So the progress goes in phases. Firstly, there is expansion, next there is preparation, then there is the final event and the destruction of our universe There is one more modification that can be made. These steps could be applied to an intergalactic expansion if new probes could temporarily outrun the wave-front of the destruction of the universe if proper planning is conducted. Then it could make new baby universes in new galaxies, just before the wave-front reaches them. This might all happen within a few decades of 100 years in relative time from the perspective of someone aboard one of the probes. That is vaguely consistent with my own preconceptions of the timing of an asymptotic technological singularity in our near future. So maybe we should indulge this thinking. Maybe there won’t be a year 2,500 or 3,000. Maybe our own creations will have brought about an end to the entire universe by that time, setting in motion something else beyond our current comprehension. Another self-consistent version of this story is that we are, ourselves, products of a baby universe from such an event. This is also a relatively good, self-consistent, resolution to the Fermi Paradox, the Doomsday argument, and the Simulation argument.

#### Growth causes a global toxification crisis – risks extinction

Ehrlichand Ehrlich 13 Paul R. Ehrlich, Professor of Biology and President of the Center for Conservation Biology at Stanford University, and Adjunct Professor at the University of Technology, Sydney, Anne H. Ehrlich, Senior Research Scientist in Biology at Stanford and focuses her research on policy issues related to the environment, “Can a collapse of global civilization be avoided?”, Proc Biol Sci. Mar 7, 2013; 280(1754)/TK // Re-Cut Justin

Another possible threat to the continuation of civilization is global toxification. Adverse symptoms of exposure to synthetic chemicals are making some scientists increasingly nervous about effects on the human population [77–79]. Should a global threat materialize, however, no planned mitigating responses (analogous to the ecologically and politically risky ‘geoengineering’ projects often proposed to ameliorate climate disruption [80]) are waiting in the wings ready for deployment. Much the same can be said about aspects of the epidemiological environment and the prospect of epidemics being enhanced by rapid population growth in immune-weakened societies, increased contact with animal reservoirs, high-speed transport and the misuse of antibiotics [81]. Nobel laureate Joshua Lederberg had great concern for the epidemic problem, famously stating, ‘The survival of the human species is not a preordained evolutionary program’ [82, p. 40]. Some precautionary steps that should be considered include forbidding the use of antibiotics as growth stimulators for livestock, building emergency stocks of key vaccines and drugs (such as Tamiflu), improving disease surveillance, expanding mothballed emergency medical facilities, preparing institutions for imposing quarantines and, of course, moving as rapidly as possible to humanely reduce the human population size. It has become increasingly clear that security has many dimensions beyond military security [83,84] and that breaches of environmental security could risk the end of global civilization.

#### cosmogenesis is coming and causes infinite suffering.

Tomasik 17 – Brian Tomasik, Researcher, Cofounder and Advisor at the Foundational Research Institute, BS in Computer Science from Swarthmore College, Former Research Assistant at the University of Pennsylvania, Former Software Development Engineer II at Microsoft, “Lab Universes: Creating Infinite Suffering”, Essays on Reducing Suffering, 6-16, https://reducing-suffering.org/lab-universes-creating-infinite-suffering/

Background on lab universes

Some physical theories predict that it may be possible to create new, "baby" universes out of a small amount of matter. Technical reviews of the topic can be found in Stefano Ansoldi and Eduardo I. Guendelman, "Child Universes in the Laboratory," and Gordon McCabe, "How to Create a Universe." Popular-level introductions include the following:A Swarm of Ancient Stars - GPN-2000-000930

--Jim Holt, "The Big Lab Experiment," Slate, 2004

--Zeeya Merali, "Create Your Own Universe," New Scientist, 2006

--Robert Krulwich, "Build Your Own Universe," NPR, 2006.

McCabe explained the concept clearly (p. 6):

Now, one of the most intriguing possibilities opened up by inflation, is the possible creation of a universe 'in a laboratory'. Creation in a laboratory is taken to mean the creation of a physical universe, by design, using the 'artificial' means available to an intelligent species. It is the ability of inflation to maintain a constant energy density, in combination with a period of exponential expansion, which is the key to these laboratory creation scenarios. The idea is to use a small amount of matter in the laboratory, and induce it to undergo inflation until its volume is comparable to that of our own observable universe. The energy density of the inflating region remains constant, and because it becomes the energy density of a huge region, the inflating region acquires a huge total (non-gravitational) energy.

Andrei Linde, one of the founders of inflationary cosmology, put it this way (p. 8):

Indeed, one may need to have only a milligram of matter in a vacuum-like exponentially expanding state, and then the process of self-reproduction will create from this matter not one universe but infinitely many!

Another pioneer of inflation is Alan Guth, the subject of a 1987 New York Times article:

PHYSICISTS often probe the workings of nature on a cosmic scale, but Prof. Alan H. Guth and his colleagues at the Massachusetts Institute of Technology may have set themselves the ultimate research goal. They are seeking a mechanism by which humans might create a new universe from scratch.

Outrageous though such a notion may be, Dr. Guth and his collaborators are perfectly serious about their investigation. "Ten years ago, we couldn't even have posed the question of whether a man-made universe would be possible," he said. "But physics has progressed a long way since then, and today we can ask this and related questions in the real hope of finding scientifically testable answers. We are working in a new and exciting environment."

In his 1997 book, The Inflationary Universe (pp. 268-69), Guth wrote:

To put the story in perspective, one should remember that the process of eternal inflation [postulated by the theory of the self-reproducing inflationary universe ...] leads to an exponential increase in the number of pocket universes on time scales as short as 10-37 seconds. Since the time needed for the development of a super-advanced civilization is measured in billions of years or more, there appears to be no chance that laboratory production of universes could compete with the "natural" process of eternal inflation.

On the other hand, a child universe created in a laboratory by a super-advanced civilization would set into motion its own progression of eternal inflation. Could the super-advanced civilization find a way to enhance its efficiency? We may have to wait a few billion years to find out.

Infinite suffering

Starting a chain of eternal inflation in the laboratory would produce infinitely many new universes. But what types of universes would emerge? Suppose we assume -- as do Jaume Garriga and Alex Vilenkin in their 2001 article "Many worlds in one" -- that there are only finitely many possible universe histories of a particular duration (say, 13.7 billion years, the age of our universe); call these "histories" for short. The existence of infinitely many universes needn't, in general, imply the existence of all possible histories. As Alex Vilenkin notes in his 2006 book Many Worlds in One, the sequence 1, 3, 5, 7, ... contains infinitely many integers but doesn't contain all possible integers, and one might imagine an analogous situation for universe histories (p. 114). However, because "the initial conditions at the big bang are set by random quantum processes during inflation" (p. 114), the theory of inflation does imply that lab universes would instantiate all possible histories infinitely many times (with probability one -- see the second Borel-Cantelli lemma). This would, of course, include infinitely many replications of the Holocaust, infinitely many acts of torture, and so on. Indeed, there would be infinitely many universes in which Hitler won World War II, as well as infinitely many universes that would be as close as physically possible to "hell on earth" (or on any other planet). The assumption of finitely many possible histories is not really important. As long as we assume that the probability is greater than zero that suffering will emerge in a random universe, creating infinitely many universes would create infinite amounts of suffering.

#### civilizational development leads to space totalitarianism and interplanetary wars.

Deudney, 20—Associate Professor of Political Science at Johns Hopkins University (Daniel, “Limitless Frontiers, Spaceship Earths, and Higher Humanities,” *Dark Skies: Space Expansionism, Planetary Geopolitics, and the Ends of Humanity*, Chapter 6, pg 209-211, Kindle, dml)

Given the primacy of freedom in Cole and Cox’s argument for space colonization, the question of whether space colonies will tend to be islands of freedom or micrototalitarian hives gains critical importance for their space vision. They first observe that a “planetoid colony” would not seem a promising place for freedom and diversity as it “would necessarily be highly organized, with cooperation, specialization, and interdependence of the inhabitants approaching that of the cells of the human body.”127 They also acknowledge that such a “closed-cycle society” would be “far more sensitive to aberrant behavior, asocial, and destructive behavior.”128 Furthermore, the “possibilities of physical resistance, or violent rebellion” in a “delicately balanced closed-system would be catastrophic.”129

Despite these daunting obstacles, Cole and Cox are very confident that freedom will flourish. While some colony governments might attempt to establish a totalitarian regime, such a situation would “contain the seeds of its own destruction” because “men naturally resist compulsion” and “forced cooperation cannot be as productive as free cooperation,” while “bottled up resentments will eventually explode into violent rebellion.”130 They conclude that the “new world society, like any society, would have to be democratic to be stable. And stability would be essential for the safety of the whole society.”131 As a result, they reassuringly conclude that space worlds will “probably have a government generally approximating those of the western democracies.”132 In sum, for Cole and Cox, the very high vulnerability of space worlds to violence ensures that they will be politically free rather than totalitarian. But it remains something of a mystery how the same forces jeopardizing freedom on Earth can be relied upon to preserve freedom in space colonies. And it is also notable that the authors give no consideration to how such asteroid worlds will interact militarily with the Earth, despite the prospect of the fearsome planetoid bomb.

The prospects for freedom in space colonies have recently received their most extensive discussion in the work of the British astrobiologist Charles S. Cockell in his book Extra-Terrestrial Liberty: An Enquiry into the Nature and Causes of Tyrannical Government beyond the Earth (2013), and in a series of conferences and edited volumes sponsored by the British Interplanetary Society.133 Cockell’s main theme is that “the extra-terrestrial environment’s tendency to solidify and give succour to tyranny works at many different levels.”; His great fear is “a population of contented extra-terrestrial slaves—a cryptic natural tyranny” in a “colony of automatons” with their “freedom reduced to a withered core.”134 Over the course of his wide-ranging discussion, Cockell identifies fourteen distinct ways in which space colonies will tend toward unfreedom, tyranny, and despotism in their politics, cultures, and economics. Unlike many space expansionists, Cockell does not consider alterations in humanity, holding that the human character “remains invariant.”135

A dauntingly long list of factors predispose space colonies to unfreedom. First is the fact that such colonies, situated in the harshly inhospitable environments of space and other planets, will inevitably have central control over the necessities of life, most notably oxygen, water, and food, whose access has been largely taken for granted in all terrestrial human societies.136 Second, space colonies will be spatially isolated, with a “natural Berlin Wall” preventing the flights to freedom that were available on Earth.137 Third, there will be high barriers to the free flow of information between space colonies and societies elsewhere.138 Fourth, free assembly, vital to permitting the mobilization and expression of popular grievances, will be difficult in the cramped and totally built spaces in extraterrestrial colonies.139 Fifth, picking up on the point made by Cole and Cox, “unpredictable and criminal actions against the infrastructure represent a continuously present and potentially catastrophic” threat, thus justifying extreme constraints on individual activity and expression.140 Sixth, space colonies will have “the need for a most intrusive and thorough-going surveillance regime” that will be easy to achieve and will extinguish privacy and erode individual autonomy.141 Seventh, space colonies will be prone to cultures of intense conformity and will lack cultural diversity.142 Eighth, the isolated and confined life of space colonies is likely to give rise to various forms of new religions with cultic tendencies inimical to individual freedom.143 Ninth, turning to economics, collective efforts, not individual, will be necessary for converting raw resources into valuable goods, unlike on Earth, where sole proprietor and “homestead” ventures are both viable and widely viewed as a foundation for free societies.144 Tenth, laissez-faire economic systems will be infeasible in space colonies, precluding a basic feature of free market economies on Earth.145 Eleventh, space colonies are likely to require some type of welfare state to ensure that everyone has at least basic life-support services. Twelfth, the economies of space colonies are likely to be more autarkic than those on Earth, reducing the prospects for free trade, widely viewed as associated with free societies on Earth. Thirteenth, economic activity in space colonies is likely to require high levels of central planning.146 Fourteenth and finally, population rates would need to be effectively regulated.

The future prospects for freedom in space, Cockell argues, are not just relevant to space but could also decisively shape the destiny of free societies on Earth. Space colonies could “exert a disproportionate effect on the Earth compared to their size and populations” because their position atop the gravity well would give them the ability to threaten the Earth with bombardment from space, hide weapons in the “unpoliceable vastness of the interplanetary void,” and better exploit the vast resources of the solar system.147 With stakes this high, and with such daunting obstacles to preserving freedom in space, one might expect Cockell to reach the cautious conclusion that space colonization should be avoided in the interest of human freedom. But this is most definitely not his conclusion. He compiles these arguments not to undercut the appeal of space colonization but to identify potential problems that he believes can be avoided through careful anticipatory planning and engineering design in creating both built spaces and institutions. Continuing on the path of terrestrial urban designers and architects, he proposes that the preservation of freedom should be an important factor in the design of space colonies as well as in the founding charters for governing space colonies.148

In the course of considering the prospects for freedom in space, two other members of the British Interplanetary Society group, the SF writer Stephen Baxter and the astronomer Ian Crawford, consider aspects of interplanetary warfare that might arise from attempts by space colonies to wage war to become independent from the Earth in ways analogous to how colonies on Earth, such as those in the Americas, became independent. After a careful quantitative assessment of violence potentials of asteroidal bombardment, they conclude that an interplanetary war “would be catastrophically lethal, even compared to our modern capability of all-out nuclear war,” and would jeopardize “the survival of the human species itself.”149 Space colonial wars for independence “would likely wreck both civilizations if not exterminate the warring populations entirely.”150 More generally, they observe that the “ease of inflicting enormous damage through an attack from space” means that “it is doubtful that the planet and its cargo of life, including the human, could be adequately protected in the event of an interplanetary war.”151 But like Cockell’s treatment of the many barriers to freedom in colonies, Crawford and Baxter do not draw the cautious conclusion that colonization is an undesirable goal. Instead they conclude that it is “essential that an interplanetary political framework is established that guarantees colonial liberty without recourse to conflict.”152