## 1n

### 1

#### New affs are a voting issue - Vote neg for clash - anything else incentivizes breaking bad 1ACs that rely on surprise to win - pre-round research and 1NC writing helps offset infinite aff prep while also incentivizing deep research to find strategic 1ACs instead of cheap shots - getting better at frontlines solves their offense

#### Debaters must disclose affirmative frameworks, advocacy text AND advantage areas thirty minutes before round – they didn’t – I have texts – that’s a voting issue for clash – our interp discourages bad affs that rely on skirting links - avoids stale generics. We’re in our 2nd JF tourney – you should be able to defend your aff vs 30 minutes of prep.

### 2

#### Settler colonialism is a permeating structure that operates via the promotion of the nation-state – it thrives off of the elimination of indigenous people and their relationship to land – that appropriation turns them into ghost and chattel slaves into mere excess labor

Tuck and Yang 12 (Eve Tuck and Wayne Yang; 2012; Decolonization: Indigeneity, Education & Society Vol. 1, No. 1, 2012, pp. 1-40; *“Decolonization is not a metaphor”*; accessed 12/7/21; <https://clas.osu.edu/sites/clas.osu.edu/files/Tuck%20and%20Yang%202012%20Decolonization%20is%20not%20a%20metaphor.pdf>; Eve Tuck is a Unangax̂ scholar in the field of Indigenous studies and educational research. Tuck is the associate professor of critical race and indigenous studies at the Ontario Institute for Studies in Education at the University of Toronto; K. Wayne Yang is Provost of John Muir College and Professor of Ethnic Studies at the University of California, San Diego; pages 5-7) HB \*brackets in original\* \*They use masculine pronouns to describe the settler not through direct association of the settler as a man but rather a dominating subject characterized as hypermasculine\*

Our intention in this descriptive exercise is not be exhaustive, or even inarguable; instead, we wish to emphasize that (a) decolonization will take a different shape in each of these contexts - though they can overlap4 - and that (b) neither external nor internal colonialism adequately describe the form of colonialism which operates in the United States or other nation-states in which the colonizer comes to stay. Settler colonialism operates through internal/external colonial modes simultaneously because there is no spatial separation between metropole and colony. For example, in the United States, many Indigenous peoples have been forcibly removed from their homelands onto reservations, indentured, and abducted into state custody, signaling the form of colonization as simultaneously internal (via boarding schools and other biopolitical modes of control) and external (via uranium mining on Indigenous land in the US Southwest and oil extraction on Indigenous land in Alaska) with a frontier (the US military still nicknames all enemy territory “Indian Country”). The horizons of the settler colonial nation-state are total and require a mode of total appropriation of Indigenous life and land, rather than the selective expropriation of profit-producing fragments. Settler colonialism is different from other forms of colonialism in that settlers come with the intention of making a new home on the land, a homemaking that insists on settler sovereignty over all things in their new domain. Thus, relying solely on postcolonial literatures or theories of coloniality that ignore settler colonialism will not help to envision the shape that decolonization must take in settler colonial contexts. Within settler colonialism, the most important concern is land/water/air/subterranean earth (land, for shorthand, in this article.) Land is what is most valuable, contested, required. This is both because the settlers make Indigenous land their new home and source of capital, and also because the disruption of Indigenous relationships to land represents a profound epistemic, ontological, cosmological violence. This violence is not temporally contained in the arrival of the settler but is reasserted each day of occupation. This is why Patrick Wolfe (1999) emphasizes that settler colonialism is a structure and not an event. In the process of settler colonialism, land is remade into property and human relationships to land are restricted to the relationship of the owner to his property. Epistemological, ontological, and cosmological relationships to land are interred, indeed made pre-modern and backward. Made savage. In order for the settlers to make a place their home, they must destroy and disappear the Indigenous peoples that live there. Indigenous peoples are those who have creation stories, not colonization stories, about how we/they came to be in a particular place - indeed how we/they came to be a place. Our/their relationships to land comprise our/their epistemologies, ontologies, and cosmologies. For the settlers, Indigenous peoples are in the way and, in the destruction of Indigenous peoples, Indigenous communities, and over time and through law and policy, Indigenous peoples’ claims to land under settler regimes, land is recast as property and as a resource. Indigenous peoples must be erased, must be made into ghosts (Tuck and Ree, forthcoming). At the same time, settler colonialism involves the subjugation and forced labor of chattel slaves5 , whose bodies and lives become the property, and who are kept landless. Slavery in settler colonial contexts is distinct from other forms of indenture whereby excess labor is extracted from persons. First, chattels are commodities of labor and therefore it is the slave’s person that is the excess. Second, unlike workers who may aspire to own land, the slave’s very presence on the land is already an excess that must be dis-located. Thus, the slave is a desirable commodity but the person underneath is imprisonable, punishable, and murderable. The violence of keeping/killing the chattel slave makes them deathlike monsters in the settler imagination; they are reconfigured/disfigured as the threat, the razor’s edge of safety and terror. The settler, if known by his actions and how he justifies them, sees himself as holding dominion over the earth and its flora and fauna, as the anthropocentric normal, and as more developed, more human, more deserving than other groups or species. The settler is making a new "home" and that home is rooted in a homesteading worldview where the wild land and wild people were made for his benefit. He can only make his identity as a settler by making the land produce, and produce excessively, because "civilization" is defined as production in excess of the "natural" world (i.e. in excess of the sustainable production already present in the Indigenous world). In order for excess production, he needs excess labor, which he cannot provide himself. The chattel slave serves as that excess labor, labor that can never be paid because payment would have to be in the form of property (land). The settler's wealth is land, or a fungible version of it, and so payment for labor is impossible.6 The settler positions himself as both superior and normal; the settler is natural, whereas the Indigenous inhabitant and the chattel slave are unnatural, even supernatural. Settlers are not immigrants. Immigrants are beholden to the Indigenous laws and epistemologies of the lands they migrate to. Settlers become the law, supplanting Indigenous laws and epistemologies. Therefore, settler nations are not immigrant nations (See also A.J. Barker, 2009). Not unique, the United States, as a settler colonial nation-state, also operates as an empire - utilizing external forms and internal forms of colonization simultaneous to the settler colonial project. This means, and this is perplexing to some, that dispossessed people are brought onto seized Indigenous land through other colonial projects. Other colonial projects include enslavement, as discussed, but also military recruitment, low-wage and high-wage labor recruitment (such as agricultural workers and overseas-trained engineers), and displacement/migration (such as the coerced immigration from nations torn by U.S. wars or devastated by U.S. economic policy). In this set of settler colonial relations, colonial subjects who are displaced by external colonialism, as well as racialized and minoritized by internal colonialism, still occupy and settle stolen Indigenous land. Settlers are diverse, not just of white European descent, and include people of color, even from other colonial contexts. This tightly wound set of conditions and racialized, globalized relations exponentially complicates what is meant by decolonization, and by solidarity, against settler colonial forces. Decolonization in exploitative colonial situations could involve the seizing of imperial wealth by the postcolonial subject. In settler colonial situations, seizing imperial wealth is inextricably tied to settlement and re-invasion. Likewise, the promise of integration and civil rights is predicated on securing a share of a settler-appropriated wealth (as well as expropriated ‘third-world’ wealth). Decolonization in a settler context is fraught because empire, settlement, and internal colony have no spatial separation. Each of these features of settler colonialism in the US context - empire, settlement, and internal colony - make it a site of contradictory decolonial desires7 . Decolonization as metaphor allows people to equivocate these contradictory decolonial desires because it turns decolonization into an empty signifier to be filled by any track towards liberation. In reality, the tracks walk all over land/people in settler contexts. Though the details are not fixed or agreed upon, in our view, decolonization in the settler colonial context must involve the repatriation of land simultaneous to the recognition of how land and relations to land have always already been differently understood and enacted; that is, all of the land, and not just symbolically. This is precisely why decolonization is necessarily unsettling, especially across lines of solidarity. “Decolonization never takes place unnoticed” (Fanon, 1963, p. 36). Settler colonialism and its decolonization implicates and unsettles everyone.

#### The 1AC is embedded within an critical astropolitics of empire – the desire to command, control, and cooperate over the unique processes of space represent an attempt to make the cosmos into a geopolitical chess game used to project western sovereignty

Havercroft and Duvall 9 (Jonathan Havercroft and Raymond Duvall; 2009; *“Critical astropolitics The geopolitics of space control and the transformation of state sovereignty”*; accessed 12/13/21; <https://www.law.upenn.edu/live/files/7892-havercroft-and-duvallcritical-astropoliticspdf>; Jonathan Havercroft is an Associate Professor in the Department of Politics and International Relations at the University of Southampton. He teaches in the areas of political theory and international relations. He is the editor of the journal Global Constitutionalism; Raymond Duvall is a Professor of Political Science at the University of Minnesota; pages 44-50) HB

Astropolitics: realist and liberal strands Realism and astropolitik Everett Dolman3 draws on the writings of Mackinder and Mahan as inspiration for his development of a theory, which he titles Astropolitik. By the term, astropolitik, Dolman means “the application of the prominent and refined realist vision of state competition into outer space policy, particularly the development and evolution of a legal and political regime for humanity’s entry into the cosmos” (Dolman 2002a: 1). While Mahan focused on the structure of the ocean to develop his theories, and Mackinder focused on the topography of land, Dolman turns his attention toward the cartography of outer space. Whereas, at first glance, space may appear to be a “featureless void,” Dolman argues that it “is in fact a rich vista of gravitational mountains and valleys, oceans and rivers of resources and energy alternately dispersed and concentrated, broadly strewn danger zones of deadly radiation, and precisely placed peculiarities of astrodynamics” (Dolman 2002a: 61). In a manner similar to Mahan’s focus on natural sea lanes and “choke points” and Mackinder’s emphasis of geographic regions, Dolman emphasizes orbits, regions of space, and launch points as geopolitically vital assets over which states can be expected competitively and strategically to struggle for control. Orbital paths are important because stable orbits require virtually no fuel expenditure for satellites, whereas unstable orbits make it impossible for satellites to remain in space for a long time. Furthermore, different types of orbits pass over different parts of the earth at different frequencies. As such, the mission of a spacecraft determines in large part which orbit is most useful for it. There are essentially four types of orbits: low-altitude (between 150 km and 800 km above the Earth’s surface); medium-altitude (ranging from 800 km–35,000 km); high-altitude (above 35,000 km); and highly elliptical (with a perigee of 250 km and an apogee of 700,000 km) (Dolman 2002a: 65–7). In addition to pointing to the division of space into orbital planes, Dolman also identifies four key regions of space: 1 Terra, which includes the Earth and its atmosphere up until “just below the lowest altitude capable of supporting unpowered orbit” (Dolman 2002: 69); 2 Earth Space, which covers the region from the lowest possible orbit through to geo-stationary orbit; 3 Lunar Space, which extends from geo-stationary orbit to the Moon’s orbit; and 4 Solar Space, which “consists of everything in the solar system . . . beyond the orbit of the moon” (Dolman 2002a: 70). For Dolman, Earth Space is the astropolitical equivalent of Mackinder’s Outer Crescent, because controlling it will permit a state to limit strategic opportunities of potential rivals and at the same time allow the projection of force for indirect control (i.e. without occupation) of extensive territory of vital strategic importance, in this case (unlike Mackinder’s) potentially the entire Earth. “Control of Earth Space not only guarantees long-term control of the outer reaches of space, it provides a near-term advantage on the terrestrial battlefield” (Dolman 1999: 93). On the basis of these principles, Dolman develops an “Astropolitik policy for the United States” (Dolman 1999: 156), which calls on the U.S. government to control Earth Space. In the current historical–political juncture, no state controls this region. However, rather than leave it as a neutral zone or global commons, Dolman calls for the U.S. to seize control of this geo-strategically vital asset. According to Dolman’s reasoning, the neutrality of Earth Space is as much a threat to U.S. security as the neutrality of Melos was to Athenian hegemony. To leave space a neutral sanctuary could be interpreted as a sign of weakness that potential rivals might exploit. As such, it is better for the U.S. to occupy Earth Space now. Dolman’s astropolitik policy has three steps. The first involves the U.S. withdrawing from the current space regime on the grounds that its prohibitions on commercial and military exploitation of outer space prevent the full exploitation of space resources. In place of the global commons approach that informs that regime, Dolman calls for the establishment of “a principle of free-market sovereignty in space” (Dolman 2002a: 157), whereby states could establish territorial claims over areas they wish to exploit for commercial purposes. This space rush should be coupled with “propaganda touting the prospects of a new golden age of space exploration” (Dolman 2002a: 157). Step two calls for the U.S. to seize control of low-Earth orbit, where “space-based laser or kinetic energy weapons could prevent any other state from deploying assets there, and could most effectively engage and destroy terrestrial enemy ASAT facilities” (Dolman 2002a: 157). Other states would be permitted “to enter space freely for the purpose of engaging in commerce” (Dolman 2002a: 157). The final step would be the establishment of “a national space coordination agency ... to define, separate and coordinate the efforts of commercial, civilian and military space projects” (Dolman 2002a: 157). Within Dolman’s theory of astropolitik is a will-to-space-based-hegemony fuelled by a series of assumptions, of which we would point to three as especially important. First, it rests on a strong preference for competition over collaboration in both the economic and military spheres. Dolman, like a good realist, is suspicious of the possibilities for sustained political and economic cooperation, and assumes instead that competition for power is the law of international political–economic life. He believes, though, that through a fully implemented astropolitical policy “states will employ competition productively, harnessing natural incentives for self-interested gain to a mutually beneficial future, a competition based on the fair and legal commercial exploitation of space” (Dolman 2002a: 4). Thus, underpinning his preference for competition is both a liberal assumption that competitive markets are efficient at producing mutual gain through innovative technologies, and the realist assumption that inter-state competition for power is inescapable in world politics. As we will note more fully below, this conjunction of liberal and realist assumptions is a hallmark of the logic of empire as distinct from the logic of a system of sovereign states. The second and most explicit of Dolman’s key assumptions is the belief that the U.S. should pursue control of orbital space because its hegemony would be largely benign. The presumed benevolence of the U.S. rests, for Dolman, on its responsiveness to its people. If any one state should dominate space it ought to be one with a constitutive political principle that government should be responsible and responsive to its people, tolerant and accepting of their views, and willing to extend legal and political equality to all. In other words, the United States should seize control of outer space and become the shepherd (or perhaps watchdog) for all who would venture there, for if any one state must do so, it is the most likely to establish a benign hegemony. (Dolman 2002a: 157) However, even if the U.S. government is popularly responsive in its foreign policy – a debatable proposition – the implication of Dolman’s astropolitik is that the U.S. would exercise benign control over orbital space, and, from that position, potentially all territory on Earth and hence all people, by being responsible to its 300 million citizens. As such, this benign hegemony would in effect be an apartheid regime where 95 percent of the world would be excluded from participating in the decision-making of the hegemonic power that controls conditions of their existence. This, too, is a hallmark of empire, not of a competitive system of sovereign states. Third, Dolman’s astropolitik treats space as a resource to be mastered and exploited by humans, a Terra Nulius, or empty territory, to be colonized and reinterpreted for the interests of the colonizer. This way of looking at space is similar to the totalizing gaze of earlier geopolitical theorists who viewed the whole world as an object to be dominated and controlled by European powers, who understood themselves to be beneficently, or, at worst, benignly, civilizing in their control of territories and populations (Ó Tuathail 1996: 24–35). This assumption, like the first two, thus also implicates a hallmark of the logic of empire, namely what Ó Tuathail (1996) calls the ‘geopolitical gaze’ (about which we have more to say below), which works comfortably in tandem with a self-understanding of benign hegemony. When these three assumptions are examined in conjunction, Dolman’s astropolitik reveals itself to be a blueprint for a U.S. empire that uses the capacities of space-based weapons to exercise hegemony over the Earth and to grant access to the economic resources of space only to U.S. (capitalist) interests and their allies. This version of astropolitics, which is precisely the strategic vision underlying the policy pronouncements of the National Security Space Management and Organization Commission (Commission 2001) – and subsequently President George W. Bush – with which we began this chapter, is a kind of spatial, or geopolitical, power within the context of U.S. imperial relations of planetary scope. Its ostensive realist foundations are muted, except as a rather extreme form of offensive realism, because the vision is not one of great power competition and strategic balancing, but rather one of imperial control through hegemony. As such, it brings into question the constitution of sovereignty, since empire and sovereignty are fundamentally opposed constitutive principles of the structure of the international system – the subjects of empire are not sovereign. Thus, if astropolitics is to be in the form of Dolman’s astropolitik (and current U.S. policy aspirations), the future of sovereignty is in question, despite his efforts to position the theory as an expression of the realist assumption of great power competition. In later sections of this chapter, we attempt to show what this bringing sovereignty into question is likely to mean, conceptually and in practice. Before turning to that principal concern, however, we consider an alternative geopolitical theory of astropolitics. Liberal-republican astropolitics Over the past twenty-five years, in a series of articles and recently a major book, Daniel Deudney has attempted to rework the tenets of geopolitics and apply them to the contemporary challenges raised by new weapons technologies – particularly nuclear and space weapons (Deudney 1983, 1985, 1995, 2000, 2002, 2007).4 While Deudney finds geopolitical theory of the late nineteenth century and early twentieth century theoretically unsophisticated and reductionist, he believes that geopolitical attention to material conditions, spatiality, change, and political processes could form the basis of a theoretically sophisticated contextual–materialist security theory of world politics. Deudney starts from a premise about space weaponization similar to the core of Dolman’s astropolitik, namely that if any state were able to achieve military control of space, it would hold potential mastery over the entire Earth. One preliminary conclusion, however, seems sound: effective control of space by one state would lead to planet-wide hegemony. Because space is at once so proximate and the planet’s high ground, one country able to control space and prevent the passage of other countries’ vehicles through it could effectively rule the planet. Even more than a monopoly of air or sea power, a monopoly of effective space power would be irresistible. (Deudney 1983: 17) Rather than developing the implications of this as a strategic opportunity for any one state (e.g. the U.S.), however, Deudney sees it as a collective problem to be kept in check through collaboration; his project is to avoid space-based hegemony through cooperation among states. In a series of articles on global security written in the 1980s – while Cold War tensions between the U.S. and the U.S.S.R. continued to frame much theoretical discussion in international relations – Deudney saw the space age as a double-edged sword in superpower relations. On the one side, space weaponization posed a risk that the superpowers would extend their conflict extra-terrestrially and devise new, deadlier technologies that would enhance the risk of exterminating all of humanity; on the other, according to Deudney, the space age had found productive opportunities for the superpowers to deal with their rivalries in stabilizing collaboration. He notes that the Sputnik mission, while in the popular understanding only an escalation of the Cold War, initially was the result of an internationally organized research program – the International Geophysical Year (Deudney 1985; though see Dolman 2002a: 106–107 for an alternate interpretation of these events as Cold War competition). Another example was President Eisenhower’s proposed “Atoms for Peace” project, which involved the great powers sharing nuclear technology with developing nations for energy purposes. Most famous was the collaboration between the Soviet Union and the U.S. during the 1970s on the rendezvous between an Apollo capsule and the Soyuz space station. Similar multinational collaborations continue to this day, with the most notable example being the International Space Station. In addition to promoting collaboration, according to Deudney, the space age has also enhanced the ability of space powers to monitor each other – through spy satellites – thereby increasing the likelihood that they abide by arms control treaties. Deudney believes that these types of collaboration and increased surveillance could be strengthened and deepened so that great powers could be persuaded over time to “forge missiles into spaceships” (Deudney 1985: 271). In the 1980s this led Deudney to develop a set of specific proposals for a peaceful space policy, including collaboration between space powers on manned missions to the Moon, asteroids, and Mars. The development of an International Satellite Monitoring Agency would make “space-based surveillance technology accessible to an international community” for monitoring ceasefires, crises, compliance with international arms control treaties, and the Earth’s environment (Deudney 1985: 291). These proposals are aimed at promoting collaboration on projects of great scientific and military significance for the individual states. Deudney’s expectation is that such cooperation would mitigate security dilemmas and promote greater ties between states that would co-bind their security without sacrificing their sovereignty. While Deudney has not been explicit about how his astropolitics of collaboration would alter world order, in his more theoretical writings he has elaborated the logic of a liberal-republican international system. In a 2002 article on geopolitics and international theory, he developed what he called a‘historical security materialist’ theory of geopolitics: “[I]n which changing forces of destruction (constituted by geography and technology) condition the viability of different modes of protection (understood as clusters of security practices) and their attendant ‘superstructures’ of political authority structures (anarchical, hierarchical, and federal-republican)” (Deudney 2002: 80). In that work, he identified four different eras in which distinct modes of destruction were predominant: Pre-modern; Early Modern; Global Industrial; and Planetary-Nuclear, as well as two modes of protection: real-statism, which is based on an internal monopoly of violence and external anarchy; and federal-republicanism, which is based on an internal division of powers and an external symmetrical binding of actors through institutions that reduces their autonomy in relation to one another. According to Deudney, in the Planetary-Nuclear age the federal-republican mode of protection is more viable because states “are able to more fully and systematically restrain violence” than under the power balancing practices of real-statist modes of protection (Deudney 2002: 97; see also Deudney 2007: 244–277 for an elaboration of this argument). Although Deudney has not extended his “historical security materialist” approach into explicitly theorizing space weapons, per se (dealt with only tangentially and implicitly in the last two chapters of his recent book), his proposals during the Cold War to foster institutional collaboration between space powers as a way of promoting peace can safely be understood as a form of the mutually binding practices that he associates with the federalrepublican mode of protection. In addition, one of the general conclusions that Deudney reaches about “historical security materialism” is that the more a security context is rich in the potential for violence, the better suited a federal-republican mode of protection is to avoid systemic breakdown. Therefore, it seems reasonable to conclude that within Deudney’s work is a nascent theory of how a federal-republican international system could limit conflict between space powers by binding them together in collaborative uses of space for exploratory and security uses. In this sense, Deudney can be read as the liberal-republican astropolitical counterpart to Everett Dolman.5 While Deudney’s astropolitical theorizations hold out the promise of a terrestrial pacification through space exploration it is interesting to note a significant aporia in his theory – empire as a possible mode of protection. While real-statist modes of protection have an internal hierarchical authority structure, they are based on assumptions of external-anarchy, which is to say a system of sovereign states. Conversely, the federal-republican model is based on a symmetrical binding of units, in a way that no single unit can come to dominate others and accordingly in which they preserve their sovereignty (Deudney 2000, 2002, 2007). In a third mode, to which Deudney gives only scant attention, the case of empire, the hegemony of a single unit is such that other units are bound to it in an asymmetrical pattern that locates sovereignty only in the hegemon, or imperial center. Successful empires, including the Roman, British, and American, permit local autonomy in areas that are not of the imperial power’s direct concern while demanding absolute obedience in areas that are of vital concern to it, particularly when it comes to issues of security.6 Deudney’s implicit astropolitical theory thus ignores structurally asymmetric relations – in effect he ignores power. It is as if in wanting to have the world avoid the possibility of a planetary hegemony at the heart of the premise with which he and Dolman began their respective analyses, he white-washes it by failing to acknowledge the profound asymmetries of aspirations and technological–financial–military capacities among states for control of orbital space. In the next two sections we respond to Deudney’s call for “historical security materialism” by focusing on the premise that he skirts but that Dolman emphasizes, that military control of space means (at least the possibility of) mastery of the Earth. Specifically we examine how a new mode of destruction – space weapons – is the ideal basis for the third mode of protection – empire – through its potential for substantial asymmetry. We argue that the power asymmetries of space weapons have very significant constitutive effects on sovereignty and international systemic anarchy, and underlie the constitution of a new, historically unprecedented, form of empire. Before turning to that central thesis, however, we will first sketch the general contours of a critical astropolitics, which builds on the foundational premise of Dolman and Deudney, but modifies their theories in light of the significant insights of critical theory, particularly with respect to constitutive power. We ask: what consequences of astropolitics can a critical approach illuminate that may be concealed by an astropolitics informed by either liberal-republican or realist assumptions? How can insights offered by the revival of geopolitics in the writings of Deudney and Dolman – particularly the call for a new security materialist mode of analysis – be used to supplement and refine critical international relations theory?

#### The alternative is a refusal of the affirmative – an engagement in the process of decentering settler subjectivities and injecting indigenous knowledge – in this project, refusal constitutes a multi-faceted method towards decolonization

Grande 18 (Sandy Grande; 2018; Routledge Publishing; *“Refusing the University,”* a chapter in the series of essays *“Toward What Justice?: Describing Diverse Dreams of Justice in Education”*; accessed 12/22/21; ask me for the pdf; Sandy Grande is associate professor and Chair of the Education Department at Connecticut College. Her research interfaces critical Indigenous theories with the concerns of education; 58-62) HB

Taking into account the power relations of both capitalism and white supremacy, Indigenous scholars posit refusal as a positive stance that is: less oriented around attaining an affirmative form of recognition… and more about critically revaluating, reconstructing and redeploying culture and tradition in ways that seek to prefigure… a radical alternative to the structural and psycho-affective facets of colonial domination. (Coulthard, 2007, p. 456) In this way, Indigenous refusal both negatively rejects the (false) promise of inclusion and other inducements of the settler state and positively asserts Indigenous sovereignty and peoplehood. In Mohawk Interruptus (2014), Audra Simpson theorizes refusal as distinct from resistance in that it does not take authority as a given. More specifically, at the heart of the text, she theorizes refusal at the “level of method and representation,” exposing the colonialist underpinnings of the “demand to know” as a settler logic. In response, she develops the notion of ethnographic refusal as a stance or space for Indigenous subjects to limit access to what is knowable and to being known, articulating how refusal works “in everyday encounters to enunciate repeatedly to ourselves and to outsiders that ‘this is who we are, this is who you are, these are my rights’” (Simpson, 2007, p. 73). Mignolo (2011) and Quijano (1991) similarly take up refusal in relation to knowledge formation, asserting Indigenous knowledge itself as a form of refusal; a space of epistemic disobedience that is “delinked” from Western, liberal, capitalist understandings of knowledge as production. Gómez-Barris (2012) theorizes the Mapuche hunger strikes as “an extreme bodily performance and political instantiation” of refusal, an act wherein their starving bodies upon the land literally enact what it means to live in a state of permanent war (p. 120). Understood as expressions of sovereignty, such acts of refusal threaten the settler state, carrying dire if not deadly consequences for Indigenous subjects. As noted by Ferguson (2015), “capitalist settler states prefer resistance” because it can be “negotiated or recognized,” but refusal “throws into doubt” the entire system and is therefore more dangerous. While within the university the consequences of academic refusal are much less dire, they still carry a risk. To refuse inclusion offends institutional authorities offering “the gift” of belonging, creating conditions of precarity for the refuser. For example, refusal to participate in the politics of respectability that characterizes institutional governance can result in social isolation, administrative retribution, and struggles with self-worth. Similarly, the refusal to comply with the normative structures of tenure and promotion (e.g., emphasizing quantity over quality; publishing in “mainstream” journals) can and does lead to increased marginalization, exploitation, and job loss.16 And, in a system where Indigenous scholars comprise less than 1% of the professorate, such consequences not only bear hardships for individuals but also whole communities. That said, academic “rewards” and inducements accessed through recognition-based politics can have even deeper consequences. As Jodi Byrd (2011) reminds us, the colonization of Indigenous lands, bodies, and minds will not be ended by “further inclusion or more participation” (Byrd, 2011, p. xxvi). The inspirational work of Black radical and Indigenous scholars compels thinking beyond the limits of academic recognition and about the generative spaces of refusal that not only reject settler logics but also foster possibilities of co-resistance. The prospect of coalition re-raises one of the initial animating questions of this chapter: What kinds of solidarities can be developed among peoples with a shared commitment to working beyond the imperatives of capital and the settler state? Clearly, despite the ubiquitous and often overly facile calls for solidarity, building effective coalitions is deeply challenging, even among insurgent scholars. Within this particular context, tensions between Indigenous sovereignty and decolonial projects and anti-racist, social justice projects, raise a series of suspicions: whether calls for Indigenous sovereignty somehow elide the a priori condition of blackness (the “unsovereign” subject),17 whether anti-racist struggles sufficiently account for Indigenous sovereignty as a land-based struggle elucidated outside regimes of property, and whether theorizations of settler colonialism sufficiently account for the forces and structures of white supremacy, racial slavery, and antiblackness. Rather than posit such tensions as terminally incommensurable, however, I want to suggest a parallel politics of dialectical co-resistance. When Black peoples can still be killed but not murdered; when Indians are still made to disappear; when (Indigenous) land and Black bodies are still destroyed and accumulated for settler profit; it is incumbent upon all those who claim a commitment to refusing the white supremacist, capitalist, settler state, to do the hard work of building “interconnected movements for decolonization” (Coulthard, 2014). The struggle is real. It is both material and psychological, both method and politics, and thus must necessarily straddle the both/and (as opposed to either/or) coordinates of revolutionary change. In terms of process, this means working simultaneously beyond resistance and through the enactment of refusal—as fugitive, abolitionist, and Indigenous, sovereign subjects. Within the context of the university, this means replacing calls for more inclusive and diverse, safe spaces within the university with the development of a network of sovereign, safe houses outside the university. Kelley reminds us of the long history of this struggle, recalling the Institute of the Black World at Atlanta University (1969), the Mississippi Freedom Schools, and the work of Black feminists Patricia Robinson, Donna Middleton, and Patricia Haden as inspirational models. As a contemporary model, he references Harney and Moten’s vision of the undercommons as a space of possibility: a fugitive space wherein the pursuit of knowledge is not perceived as a path toward upward mobility and material wealth but rather as a means toward eradicating oppression in all of its forms (Undercommoning Collective). The ultimate goal, according to Kelley (2016), is to create in the present a future that overthrows the logic of neoliberalism. Scholars within Native studies similarly build upon a long tradition of refusing the university, theorizing from and about sovereignty through land-based models of education. Whereas a fugitive flees and seeks to escape, the Indigenous stands ground or, as Deborah Bird points out, “to get in the way of settler colonization, all the native has to do is stay at home” (as cited in Wolfe, 2006, p. 388). The ultimate goal of Indigenous refusal is Indigenous resurgence; a struggle that includes but is not limited to the return of Indigenous land. Again, while the aims may be different (and in some sense competing), efforts toward the development of parallel projects of co-resistance are possible through vigilant and sustained engagement. The “common ground” here is not necessarily literal but rather conceptual, a corpus of shared ethics and analytics: anti-capitalist, feminist, anti-colonial. Rather than allies, we are accomplices—plotting the death but not murder of the settler university. Toward this end, I offer some additional strategies for refusing the university: First and foremost, we need to commit to collectivity—to staging a refusal of the individualist promise project of the settler state and its attendant institutions. This requires that we engage in a radical and ongoing reflexivity about who we are and how we situate ourselves in the world. This includes but is not limited to a refusal of the cycle of individualized inducements—particularly, the awards, appointments, and grants that require complicity or allegiance to institutions that continue to oppress and dispossess. It is also a call to refuse the perceived imperative to self-promote, to brand one’s work and body. This includes all the personal webpages, incessant Facebook updates, and Twitter feeds featuring our latest accomplishments, publications, grants, rewards, etc. etc. Just. Make. It. Stop. The journey is not about self—which means it is not about promotion and tenure—it is about the disruption and dismantling of those structures and processes that create hierarchies of individual worth and labor. Second, we must commit to reciprocity—the kind that is primarily about being answerable to those communities we claim as our own and those we claim to serve. It is about being answerable to each other and our work. One of the many things lost to the pressures of the publish-or-perish, quantity-over-quality neoliberal regime is the loss of good critique. We have come to confuse support with sycophantic praise and critical evaluation with personal injury. Through the ethic of reciprocity, we need to remind ourselves that accountability to the collective requires a commitment to engage, extend, trouble, speak back to, and intensify our words and deeds. Third, we need to commit to mutuality, which implies reciprocity but is ultimately more encompassing. It is about the development of social relations not contingent upon the imperatives of capital—that refuses exploitation at the same time as it radically asserts connection, particularly to land. Inherent to a land-based ethic is a commitment to slowness and to the arc of inter-generational resurgence and transformation. One of the many ways that the academy recapitulates colonial logics is through the overvaluing of fast, new, young, and individualist voices and the undervaluing of slow, elder, and collective ones. And in such a system, relations and paradigms of connection, mutuality, and collectivity are inevitably undermined. For Indigenous peoples, such begin and end with land, centering questions of what it means to be a good relative. Toward this end, I have been thinking a lot lately about the formation of a new scholarly collective, one that writes and researches under a nom de guerre—like the Black feminist scholars and activists who wrote under and through the Combahee River Collective or the more recent collective of scholars and activists publishing as “the uncertain commons.”18 If furthering the aims of insurgence and resurgence (and not individual recognition) is what we hold paramount, then perhaps one of the most radical refusals we can authorize is to work together as one; to enact a kind of Zapatismo scholarship and a balaclava politics where the work of the collectivity is intentionally structured to obscure and transcend the single voice, body, and life. Together we could write in refusal of liberal, essentialist forms of identity politics, of individualist inducements, of capitalist imperatives, and other productivist logics of accumulation. This is what love as refusal looks like. It is the un-demand, the un-desire to be either of or in the university. It is the radical assertion to be on: land. Decolonial love is land.

#### The role of the ballot should be to center indigenous scholarship – any project of research should begin and end with placing the indigenous demands and resistance at it’s forefront. Our role as settlers specifically obligates us to center our politics in the context of ensuring accountability

Carlson 16 (Elizabeth Carlson; 10/21/16; Settler Colonial Studies; *“Anti-colonial methodologies and practices for settler colonial studies”*; accessed 12/28/21; ask me for the pdf; Elizabeth Carlson is an Assistant Professor at the School of Social Work at Laurentian University; pages 9-10) HB

Relational and epistemic accountability to Indigenous peoples Arlo Kempf says that ‘where anticolonialism is a tool used to invoke resistance for the colonized, it is a tool used to invoke accountability for the colonizer’. 42 Relational accountability should be a cornerstone of settler colonial studies. I believe settler colonial studies and scholars should ethically and overtly place themselves in relationship to the centuries of Indigenous oral, and later academic scholarship that conceptualizes and resists settler colonialism without necessarily using the term: SCT may be revelatory to many settler scholars, but Indigenous people have been speaking for a long time about colonial continuities based on their lived experiences. Some SCTs have sought to connect with these discussions and to foreground Indigenous resistance, survival and agency. Others, however, seem to use SCT as a pathway to explain the colonial encounter without engaging with Indigenous people and experiences – either on the grounds that this structural analysis already conceptually explains Indigenous experience, or because Indigenous resistance is rendered invisible.43 Ethical settler colonial theory (SCT) would recognize the foundational role Indigenous scholarship has in critiques of settler colonialism. It would acknowledge the limitations of settler scholars in articulating settler colonialism without dialogue with Indigenous peoples, and take as its norm making this dialogue evident. In my view, it is critical that we not view settler colonial studies as a new or unique field being established, which would enact a discovery narrative and contribute to Indigenous erasure, but rather take a longer and broader view. Indigenous oral and academic scholars are indeed the originators of this work. This space is not empty. Of course, powerful forces of socialization and discipline impact scholars in the academy. There is much pressure to claim unique space, to establish a name for ourselves, and to make academic discoveries. I am suggesting that settler colonial studies and anti-colonial scholars resist these hegemonic pressures and maintain a higher anti-colonial ethic. As has been argued, ‘the theory itself places ethical demands on us as settlers, including the demand that we actively refuse its potential to re-empower our own academic voices and to marginalize Indigenous resistance’. 44 As settler scholars, we can reposition our work relationally and contextually with humility and accountability. We can centre Indigenous resistance, knowledges, and scholarship in our work, and contextualize our work in Indigenous sovereignty. We can view oral Indigenous scholarship as legitimate scholarly sources. We can acknowledge explicitly and often the Indigenous traditions of resistance and scholarship that have taught us and provided the foundations for our work. If our work has no foundation of Indigenous scholarship and mentorship, I believe our contributions to settler colonial studies are even more deeply problematic.

## Case

### On

#### The affirmative has no enforcement mechanism – private corporations can just circumvent since they have the funding to launch rockets on their own.

**Sheetz 21** [Michael, “Elon Musk’s SpaceX raised about $850 million, jumping valuation to about $74 billion”, CNBC. 16 February 2021. https://www.cnbc.com/2021/02/16/elon-musks-spacex-raised-850-million-at-419point99-a-share.html] //DebateDrills LC

**SpaceX completed another monster equity funding round of $850 million last week**, people familiar with the financing told CNBC, sending **the company’s valuation skyrocketing to about $74 billion.**

**The company raised the new funds at $419.99 a share**, those people said — or just 1 cent below the $420 price that [Elon Musk](https://www.cnbc.com/elon-musk/) [made infamous in 2018](https://www.cnbc.com/2018/09/28/sec-says-elon-musk-at-tesla-chose-420-price-as-pot-reference.html) when he declared **he had “funding secured” to** take [Tesla](https://www.cnbc.com/quotes/TSLA) privateat that price.

The latest round also represents **a jump of about 60% in the company’s valuation** from its previous round in August, when [S**paceX raised near $2 billion at a $46 billion valuation**](https://www.cnbc.com/2020/10/14/tesla-investor-ron-baron-spacex-has-a-chance-to-be-just-as-large.html).

SpaceX did not immediately respond to CNBC’s request for comment. In addition to SpaceX further building a war chest for its ambitious plans, **company insiders and existing investors were able to sell $750 million in a secondary transaction**, one of the people said.

The people spoke on condition of anonymity because SpaceX is not a publicly traded company and the fundraising talks were private. SpaceX raised only a portion of the funding available in the marketplace, with one person telling CNBC that **the company received “insane demand” of about $6 billion in offers over the course of just three days**.

### Both

#### Probability – 0.1% chance of a collision.

Salter 15 – Assistant Professor of Economics & Comparative Economics Research Fellow at Texas Tech University

Alexander W. Salter, Space Debris: A Law and Economics Analysis of the Orbital Commons, Mercatus Working Paper, Mercatus Center at George Mason University, 19 STAN. TECH. L. REV. 221 (2016), <https://law.stanford.edu/wp-content/uploads/2017/11/19-2-2-salter-final_0.pdf>

\*numbers replaced with English words

The probability of a collision is currently **low**. Bradley and Wein estimate that the **maximum probability** in LEO of a collision over the lifetime of a spacecraft remains **below one in one thousand**, conditional on continued compliance with NASA’s deorbiting guidelines.3 However, the possibility of a future “snowballing” effect, whereby debris collides with other objects, further congesting orbit space, remains a significant concern.4 Levin and Carroll estimate the average immediate destruction of wealth created by a collision to be approximately $30 million, with an additional $200 million in damages to all currently existing space assets from the debris created by the initial collision.5 The expected value of destroyed wealth because of collisions, currently small because of the low probability of a collision, can quickly become significant if future collisions result in runaway debris growth.

#### Kessler Syndrome false – less debris and existing guidelines solve

Lewis 15 (Hugh, Senior Lecturer in Aerospace Engineering at the University of Southampton, “Space debris, Kessler Syndrome, and the unreasonable expectation of certainty.” Room, <https://room.eu.com/article/Space_debris_Kessler_Syndrome_and_the_unreasonable_expectation_of_certainty>, Accessed 8/10/19, JMoore)

There is now widespread awareness of the space debris problem amongst policymakers, scientists, engineers and the public. Thanks to pivotal work by J.C. Liou and Nicholas Johnson in 2006 we now understand that the continued growth of the debris population is likely in the future even if all launch activity is halted. The reason for this sustained growth, and for the concern of many satellite operators who are forced to act to protect their assets, are collisions that are expected to occur between objects – satellites and rocket stages – already in orbit. In spite of several commentators warning that these collisions are just the start of a collision cascade that will render access to low Earth orbit all but impossible – a process commonly referred to as the ‘Kessler Syndrome’ after the debris scientist Donald Kessler – the reality is not likely to be on the scale of these predictions or the events depicted in the film Gravity. Indeed, results presented by the Inter-Agency Space Debris Coordination Committee (IADC) at the Sixth European Conference on Space Debris show an expected increase in the debris population of only 30% after 200 years with continued launch activity. Collisions are still predicted to occur, but this is far from the catastrophic scenario feared by some. Constraining the population increase to a modest level can be achieved, the IADC suggested, through widespread and good compliance with existing space debris mitigation guidelines, especially those relating to passivation (whereby all sources of stored energy on a satellite are depleted at the end of its mission) and post-mission disposal, such as de-orbiting the satellite or re-orbiting it to a graveyard orbit. Nevertheless, the anticipated growth of the debris population in spite of these robust efforts merits the investigation of additional measures to address the debris threat, according to the IADC.

#### Time frame – Kessler effect 200 years away.

Stube, 17 - PhD in law @ Johann Wolfgang Goethe University Frankfurt

Peter Stubbe, State Accountability for Space Debris: A Legal Study of Responsibility for Polluting the Space Environment and Liability for Damage Caused by Space Debris, Koninklijke Brill Publishing, ISBN 978-90-04-31407-8, p. 27-31

The prediction of possible scenarios of the future evolution of the debris p o p ulation involves many uncertainties. Long-term forecasting means the prediction of the evolution of the future debris environment in time periods of decades or even centuries. Predictions are based on models84 that work with certain assumptions, and altering these parameters significantly influences the outcomes of the predictions. Assumptions on the future space traffic and on the initial object environment are particularly critical to the results of modeling efforts.85 A well-known pattern for the evolution of the debris population is the so-called Kessler effect’, which assumes that there is a certain collision probability among space objects because many satellites operate in similar orbital regions. These collisions create fragments, and thus additional objects in the respective orbits, which in turn enhances the risk of further collisions. Consequently, the num ber of objects and collisions increases exponentially and eventually results in the formation of a self-sustaining debris belt aroundthe Earth. While it has long been assumed that such a process of collisional cascading is likely to occur only in a very long-term perspective (meaning a time 1 n of several hundred years),87 a consensus has evolved in recent years that an uncontrolled growth of the debris population in certain altitudes could become reality much sooner.88 In fact, a recent cooperative study undertaken by various space agencies in the scope of i a d c shows that the current l e o debris population is unstable, even if current mitigation measures are applied. The study concludes:

Even with a 90% implementation of the commonly-adopted mitigation measures [...] the l e o debris population is expected to increase by an average of **30% in the next 200 years.** The population growth is primarily driven by catastrophic collisions between 700 and 1000 km altitudes and such collisions are likely to occur every 5 to 9 years.89

#### Space is huge---nothing will collide

Albrecht 16 – Chairman of the board of USSpace LLC & fmr. head of the National Space Council

Mark Albrecht, chairman of the board of USSpace LLC, head of the White House National Space Council from 1989 to 1992, and Paul Graziani, CEO and founder of Analytical Graphics, a company that develops software and provides mission assurance through the Commercial Space Operations Center (ComSpOC), Congested space is a serious problem solved by hard work, not hysteria, 2016, https://spacenews.com/op-ed-congested-space-is-a-serious-problem-solved-by-hard-work-not-hysteria/

There are over a half million pieces of human-made material in orbit around our planet. Some are the size of school buses, some the size of BB gun pellets. They all had a function at some point, but now most are simply space debris littered from 100 to 22,000 miles above the Earth. Yet, all behave perfectly according to the laws of physics. Many in the space community have called the collision hazard caused by space debris a crisis.

Popular culture has embraced the risks of collisions in space in films like Gravity. Some participants have dramatized the issue by producing graphics of Earth and its satellites, which make our planet look like a fuzzy marble, almost obscured by a dense cloud of white pellets meant to conceptualize space congestion.

Unfortunately, for the sake of a good visual, satellites are depicted as if they were hundreds of miles wide, like the state of Pennsylvania (for the record, there are no space objects the size of Pennsylvania in orbit). Unfortunately, this is the rule, not the exception, and almost all of these articles, movies, graphics, and simulations are exaggerated and misleading. Space debris and collision risk is real, but it certainly is not a crisis.

So what are the facts?

On the positive side, space is empty and it is vast. At the altitude of the International Space Station, one half a degree of Earth longitude is almost 40 miles long. That same one half a degree at geostationary orbit, some 22,000 miles up is over 230 miles long. Generally, we don’t intentionally put satellites closer together than one-half degree.

#### Risk is low – sat designs and cleanup checks.

O’Gorman 18 (John, MA thesis submitted to Rochester Institute of Technology, “The Cost of Clean Space- A Study of the Additional Fuel Costs of Launching Above Low Earth Orbit,” 5-18, <https://pdfs.semanticscholar.org/d703/101d657334d2e1575d08005e290578770cd1.pdf?_ga=2.70400848.1753078645.1567896134-909185996.1567896134>)

To conclude, orbital debris is a current issue and has the potential to be a serious problem in the coming decades and centuries if business as usual is conducted. Fortunately, steps are being taken now which can mitigate this disastrous scenario. The space community is still relatively small and better rocket and satellite design is helping to avoid the accidental creation of debris. Studies over the feasibility of pulling large objects from orbit have already been done and they show a large amount of promise for managing the future creation of debris very effectively. Although current international policies managing debris do not yet exist, the discussion over how space will be managed is already well underway. If sound debris policies can come out of these discussions, the utility of LEO can be preserved for future generations.

### C1

#### Wrong – its 2021 supply chains r down 2.] even if that’s true the aff is non-uq bc literally the most recent ev is in 2019

### C2

[on the cc impact]

#### Warming inevitable

McKibben 16—Schumann Distinguished Scholar at Middlebury College (Bill, “Recalculating the Climate Math,” <https://newrepublic.com/article/136987/recalculating-climate-math>, dml) [ableist metaphor modifications denoted by brackets]

The future of humanity depends on math. And the numbers in a **new study** released Thursday are the **most ominous yet**. Those numbers spell out, in simple arithmetic, how much of the fossil fuel in the world’s existing coal mines and oil wells we can burn if we want to prevent global warming from cooking the planet. In other words, if our goal is to keep the Earth’s temperature from rising more than two degrees Celsius—the upper limit identified by the nations of the world—how much more new digging and drilling can we do? Here’s the answer: **zero**. That’s right: If we’re serious about preventing catastrophic warming, the new study shows, we can’t dig any new coal mines, drill any new fields, build any more pipelines. Not a single one. We’re done expanding the fossil fuel frontier. Our only hope is a swift, managed decline in the production of all carbon-based energy from the fields we’ve already put in production. The new numbers are startling. Only four years ago, I wrote an essay called “Global Warming’s Terrifying New Math.” In the piece, I drew on research from a London-based think tank, the Carbon Tracker Initiative. The research showed that the untapped reserves of coal, oil, and gas identified by the world’s fossil fuel industry contained five times more carbon than we can burn if we want to keep from raising the planet’s temperature by more than two degrees Celsius. That is, if energy companies eventually dug up and burned everything they’d laid claim to, the planet would cook five times over. That math kicked off a widespread campaign of divestment from fossil fuel stocks by universities, churches, and foundations. And it’s since become the conventional wisdom: Many central bankers and world leaders now agree that we need to keep the bulk of fossil fuel reserves underground. But the new new math is **even more explosive**. It draws on a report by Oil Change International, a Washington-based think tank, using data from the Norwegian energy consultants Rystad. For a fee—$54,000 in this case—Rystad will sell anyone its numbers on the world’s existing fossil fuel sources. Most of the customers are oil companies, investment banks, and government agencies. But OCI wanted the numbers for a different reason: to figure out how close to the edge of catastrophe we’ve already come. Scientists say that to have even a two-thirds chance of staying below a global increase of two degrees Celsius, we can release **800** gigatons more CO2 into the atmosphere. But the Rystad data shows coal mines and oil and gas wells **currently in operation** worldwide contain **942** gigatons worth of CO2. So the math problem is simple, and it goes like this: 942 > 800 “What we found is that if you burn up all the carbon that’s in the **currently operating fields and mines**, you’re **already above two degrees**,” says Stephen Kretzmann, OCI’s executive director. It’s not that if we keep eating like this for a **few more decades** we’ll be ~~morbidly obese~~ [doomed]. It’s that if we eat **what’s already in the refrigerator** we’ll be ~~morbidly obese~~ [doomed]. What’s worse, the definition of “morbid” has changed in the past four years. Two degrees Celsius used to be the red line. But scientists now believe the upper limit is **much lower**. We’ve already raised the world’s temperature by one degree—enough to **melt almost half the ice** in the Arctic, **kill off huge swaths of the world’s coral**, and **unleash lethal floods** and **drought**. July and August tied for the hottest months ever recorded on our planet, and scientists think they were almost certainly the hottest in the history of human civilization. Places like Basra, Iraq—on the edge of what scholars think was the Biblical Garden of Eden—hit 129 degrees Fahrenheit this year, approaching the point where humans **can’t survive outdoors**. So last year, when the world’s leaders met in Paris, they set a new number: Every effort, they said, would be made to keep the global temperature rise to less than 1.5 degrees. And to have even a 50–50 chance of meeting that goal, we can only release about 353 gigatons more CO2. So let’s do the math again: 942 > 353

#### We’re past the tipping point

Glikson, 16 – Earth and Paleo-climate Scientist, Visiting Fellow at the Australian National University, Research School of Earth Science, the School of Archaeology and Anthropology, and the Planetary Science Institute, and a member of the ANU Climate Change Institute (Andrew, “Global heating and the dilemma of climate scientists”, ABC, 1/28/16, http://www.abc.net.au/news/2016-01-29/glikson-the-dilemma-of-a-climate-scientist/7123246)

For one, they do. A number of prominent climate scientists, mostly representing the scientific consensus on climate change documented by the IPCC, have tried their best to convey the message in public forums. These scientists are mostly shunned by the conservative media which commonly offers platforms for those who do not accept the scientific evidence and the basic laws of nature. A sizable group of climate scientists tends to regard the IPCC-based climate consensus as too optimistic. However, mostly these scientists tend to be shunned by the media, as stated by Chomsky: It's interesting that these (public climate) debates leave out almost entirely a third part of the debate, namely, a very substantial number of scientists, competent scientists, who think that the scientific consensus is much too optimistic. A group of scientists at MIT came out with a report about a year ago describing what they called the most comprehensive modelling of the climate that had ever been done. Their conclusion, which was unreported in public media as far as I know, was that the major scientific consensus of the international commission is just way off, it's much too optimistic ... their own conclusion was that unless we terminate use of fossil fuels almost immediately, it's finished. We'll never be able to overcome the consequences. That's not part of the debate.

#### It’s too late to solve warming.

Kreutzer et al. 16—David W. Kreutzer a Senior Research Fellow at Heritage’s Center for Data Analysis and a PhD in economics from Virginia Tech // Nicolas Loris a Fellow in Energy and Environmental Policy at the Institute for Economic Policy Studies // Katie Tubb a Policy Analyst at the Institute for Economic Policy Studies // Kevin D. Dayaratna a Senior Statistician and Research Programmer at the Center for Data Analysis and a PhD [“The State of Climate Science: No Justification for Extreme Policies,” The Heritage Foundation, 22 Apr 2016, No. 3119, <http://www.heritage.org/research/reports/2016/04/the-state-of-climate-science-no-justification-for-extreme-policies>, accessed 20 Aug 2016]

The High Costs and Negligible Benefits of Climate Policy Despite trends in the actual climate data and the failure of models to accurately depict reality, many alarmists still argue that carbon mitigation policies are necessary to combat damages caused by future climate change. Heritage Foundation research has found that any sort of carbon tax, cap and trade, or other combination of carbon regulations such as the regulations on new power plants and existing ones (the Clean Power Plan) will only kill jobs and cut income, all without having any meaningful impact on global temperatures, now or in the future. Higher Energy Bills, Less Economic Growth. A Heritage Foundation analysis[55] estimates that, by 2035, the costs of the Obama Administration’s climate agenda to be: An average employment shortfall of nearly 400,000 jobs; Average employment shortfall in manufacturing of 200,000 jobs; An aggregate gross domestic product (GDP) loss of more than $2.5 trillion (inflation-adjusted); and A total income loss of more than $20,000 per family of four (inflation-adjusted). Higher energy costs hurt low-income families the most as they spend a disproportionate percentage of their budget on energy bills. In fact, EPA Administrator McCarthy admitted that the Clean Power Plan would do as much, saying, “We know that low-income, minority communities would be hardest hit.”[56] No Climate Benefit. The climate return, if any, is negligible as the President’s climate policies will have next to no impact on global temperatures. The same climate sensitivity modeling as used by the EPA shows that totally eliminating all CO2 emissions from the U.S. would moderate any warming by only 0.137 degree Celsius by 2100.[57] If the entire industrialized world totally eliminated all CO2 emissions, only 0.278 degree Celsius of warming would be averted by the end of the century.[58] Even supporters of the Obama Administration who believe global warming is a crisis have complained the Administration’s efforts fall pathetically short of what is needed.[59] EPA Administrator McCarthy has admitted in congressional testimony that the benefits of the Clean Power Plan cannot be characterized in terms of global temperature reductions.[60] Secretary of State John Kerry perhaps put it most clearly while speaking at the United Nations Framework Convention on Climate Change (UNFCCC): The fact is that even if every American citizen biked to work, carpooled to school, used only solar panels to power their homes, if we each planted a dozen trees, if we somehow eliminated all of our domestic greenhouse gas emissions, guess what—that still wouldn’t be enough to offset the carbon pollution coming from the rest of the world. If all the industrial nations went down to zero emissions—remember what I just said, all the industrial emissions went down to zero emissions—it wouldn’t be enough, not when more than 65 percent of the world’s carbon pollution comes from the developing world.[61]

#### Even if you eliminate all coal power in the world, it wouldn’t solve warming

Rapier 12—Chief Technology Officer at Merica International—a Renewable Energy Company, Master’s in Chemical Engineering from Texas A&M University [March 15, 2012, Robert Rapier, Study: Eliminating Coal-Fired Power is Worth 0.2 Degrees in 100 Years, http://www.consumerenergyreport.com/2012/03/05/study-eliminating-coal-fired-power-is-worth-0-2-degrees-in-100-years/]

Who could have dreamed solving climate change would be so easy? A new paper in Environmental Research Letters called “Greenhouse gases, climate change and the transition from coal to low-carbon electricity” concludes that replacement of all of the world’s currently operating coal-fired power plants — which produce about 40% of the world’s electricity — and replacing them with renewable energy would have an impact of 0.2 degrees Celsius 100 years from now. Cherry-Picking Conclusions According to One’s Viewpoint However, a number of climate change websites took away a very different message than I took away from the paper. Here is Joe Romm’s view: Bombshell: You Can’t Slow Projected Warming With Gas, You Need ‘Rapid and Massive Deployment’ of Zero-Carbon Power I seem to recall another “bombshell” that he recently reported upon on the same theme: Natural Gas Bombshell: Switching From Coal to Gas Increases Warming for Decades, Has Minimal Benefit Even in 2100. I debunked that by showing that in that particular study, every possible alternative — including wind power, solar power, and even simply shutting down all of the coal plants — was projected to increase global warming in the short term: BOMBSHELL: Solar and Wind Power Would Speed Up, Not Reduce, Global Warming. But Joe is back with the hyperbolic titles and exaggerations (which I get into below), and he missed the biggest story in the paper. Coal and Sunlight-Reflecting Pollutants The subject of Romm’s earlier “natural gas bombshell” was a paper written by Tom Wigley that concluded that shutting down coal-fired power plants would cause the global temperature to increase in the short term because of the loss of sunlight-reflecting pollutants. In that particular paper, Dr. Wigley modeled what would happen if coal-fired power was replaced with natural gas. He did indeed project short-term warming in that scenario, yet it was a result of the air becoming cleaner and allowing sunlight through as the coal was phased out. Thus, the media really got that story wrong, which was not about a deficiency of natural gas, but rather about the peculiarity of burning coal — that the particulate emissions reflect sunlight. Those who fixated on natural gas as the culprit could have written the same story about solar power — which the study’s author confirmed for me. Hence, I made that my “Bombshell” to illustrate the point. However, that particular study didn’t actually model the temperature impact of shutting down coal plants and replacing them with anything other than natural gas. So, I posed the following question to Dr. Wigley: What does the graph look like in 2100 if all coal-fired plants were replaced with zero emission sources (as the idealized study)? I am just wondering what the potential actually is. Are we talking about 1 or 2 degrees lower? I just have no idea of the relative context. We had several email exchanges over his paper, and he said that my questions were intriguing and he would look into them. I never heard back from him on that, but this new paper answers the question. Shuttering All the World’s Coal Plants Wouldn’t Do Much The authors of this newest study modeled the replacement of coal-fired power plants with either natural gas, coal with carbon capture and storage, hydropower, solar PV, solar thermal, wind power, or nuclear power. You can see from Joe Romm’s headline how the story is being spun, but let’s break it down in a more objective fashion. The following graphic from the paper tells the story. Pay particular attention to the temperature scale. The graphic indicates — as Tom Wigley’s previous paper indicated but which was only reported relative to natural gas — that in every single case, it doesn’t matter what coal-fired power plants are replaced with, the temperature is projected to increase for almost the next 40 years. This is true even in the baseline “Conservation” case, which involves merely idling the coal-fired plants and not replacing them with anything. The paper projects that if coal-fired power plants continue to operate, the expected temperature rise relative to the baseline (i.e., relative to the expected temperature increase from other sources) in 50 years is 0.15 degrees C, and in 100 years is about 0.33 degrees C. If coal is phased out and replaced with natural gas, the relative 50 and 100 year temperature rise is projected to be 0.14 degrees C and 0.24 degrees C, respectively. So the paper shows slightly less warming when natural gas is used, which Climate Progress Tweeted as “Switch from coal to natural gas would have zero effect on global temperatures by 2100” and included a link to Joe’s “bombshell.” That is obviously an exaggeration, as the graphic clearly shows that the effect is not zero. If it was, the natural gas line would overlay the coal line. Shocking Implications One shocking implication from the paper was the projection that hydropower would be worse than coal for the next 60 years. The study’s authors cited methane emissions from organic matter buried under water as the reason for this apparent anomaly. But that’s not the really shocking thing about the study for me. The most shocking conclusion was the magnitude of the numbers we are talking about. Even if you could in theory shut down all of the coal-fired power plants in the world and replace them with wind, solar, and hydropower — in 50 years the projected temperature is only one-twentieth of a degree C cooler than the base case of continuing to use coal. In 100 years, if I could replace all global coal-fired power plants with firm, renewable power — the temperature is only projected to be about 0.2 degrees cooler than under the coal base case. And the way this is being spun is that the 0.09 degree reduction from switching to natural gas is equivalent to an effect of “zero”, but the 0.2 degree reduction in hypothetically replacing everything with wind and solar power 100 years from now is significant. About the natural gas case, Romm literally said the 0.09 degree lower temperature in switching to natural gas means that “natural gas is a bridge fuel to nowhere”, but the 0.2 degree lower temperature in switching to renewables is “the world’s only plausible hope to avert catastrophic temperature rise.” Nuclear & Natural Gas to the Rescue — But Most Environmentalists Hate Them A big irony here is that there are only two power sources that are today capable of achieving the study’s conclusion that we must rapidly replace coal-fired power plants: Nuclear power and natural gas. If people really believe that we must urgently address this issue — and they don’t believe that the change from going to natural gas is enough — that leaves nuclear power as the only option capable of achieving a rapid replacement. Bear in mind that this is for a global replacement of coal — most of which is used in Asia. Good luck trying to sell China and India on a 0.2 degree temperature difference in 100 years if they quickly abandon their coal-fired power plants and replace them with wind power. Conclusion: Study is a Major Downer for Activists Battling Climate Change To be honest, if I was devoting my life to fighting against the threat of climate change, this would be one of the most depressing papers I have ever read. If we could convince everyone in the world to shut down their coal-fired power plants — which we can’t — and replace them with renewable power — which isn’t available in quantities sufficient to replace coal-fired power — then by the end of my life there would still be no statistically significant temperature change to even be able to tell if my life’s work was successful. But let’s be realistic, shall we? The people who are concerned about global warming have dug in their heels over natural gas, and they are generally opposed to nuclear power. Because of the sheer impossibility that we will rapidly replace coal with wind and solar power (especially since “we” is the world), then we will in all likelihood be left with the status quo. As I have said before, emissions are much higher in Asia Pacific than they are in the U.S. and Europe combined, and they are rising rapidly. Unless we can figure out a way to convince them to develop without fossil fuels — something no country has done — then global carbon emissions will continue to rise. This is why — even though I accept the science behind climate change — it isn’ t my focus. I just don’t see how the West can possibly do anything about it.

#### This alone means the aff can’t solve for cc bc it is inevitable , it means at best the case does nothing