## 1-K

#### The rotb is to vote for the debater who best interrupts heteronormativity. This is key to making the debate space inclusive and giving everyone equal accessibility to education in the space.

#### Prefer our framing-

#### 1] Inclusiveness and making people feel safe in round is a pre-req to having debate as an activity. It shouldn’t be an exclusionary activity only SOME can participate and feel comfortable in.

#### 2] Debate should be a space where marginalized voices are able to speak out, not worry about being censored.

Queen, Farrell, and Gupta 04 (https://graduateschool.syr.edu/wp-content/uploads/2015/05/Interrupting-Heteronormativity-text.pdf)

Although the term “heteronormativity” is gaining some currency in pedagogical theories and practices, the term is often left out of discussions about “diversity” altogether. Heteronormativity sounds complex, but is actually quite simple. As a term, heteronormativity describes the processes through which social institutions and social policies reinforce the belief that human beings fall into two distinct sex/gender categories: male/man and female/woman. This belief (or ideology) produces a correlative belief that those two sexes/genders exist in order to fulfill complementary roles, i.e., that all intimate relationships ought to exist only between males/men and females/women. To describe a social institution as heteronormative means that it has visible or hidden norms, some of which are viewed as normal only for males/men and others which are seen as normal only for females/women. As a concept, heteronormativity is used to help identify the processes through which individuals who do not appear to “fit” or individuals who refuse to “fit” these norms are made invisible and silenced. Heteronormative institutions and practices, then, block access to full legal, political, economic, educational, and social participation for millions of individuals in the U.S. This anti-democratic, exclusionary ideology undermines the fundamental mission of Syracuse University. Our purpose in this book is twofold: first, to make visible the everyday, seemingly inconsequential ways in which our classrooms become sites for the reinforcement of heteronormative ideologies and practices that inhibit student learning as well as studentteacher and student-student interactions. And second, to help you learn how to identify, bring attention to, and work with your students to interrupt these ideologies and practices in your classroom. In addition to its focus on “practical” classroom concerns, this book also provides a conceptual framework or pedagogy—an approach to or perspective on teaching—for thinking about but also beyond the course content, to include students’ relation to the material, the experiences and knowledge students bring into the classroom, the particular classroom structures, course units, or sequences and their relation to the goals of the course, your role in students’ learning processes, peers’ roles in students’ learning, students’ roles in your teaching, the examples you use, the technology you use, and so on. In essence, your pedagogy provides the reasons for why you do what you do in the classroom. The LGBT pedagogy in this book provides you with an approach to teaching that foregrounds the ways in which heteronormative ideologies and practices are embedded in all classrooms, and suggests ways to interrupt those practices in order to create the most effective learning environment for all students in your classroom. In a very real sense, then, the LGBT pedagogy in this book challenges you to work toward fulfilling the educational mission of this institution, rather than simply fulfilling particular course or disciplinary goals. One of our fundamental responsibilities as teachers at SU is to engage with students in a collaborative effort to examine and interrupt the limits of our experiences, perspectives, and knowledges in order to create spaces for a sociallyjust vision of the world.

#### The discourse of the 1ac is indebted to a masculinized, heteronormative paradigm of dominance – gendered assumptions are built into space policy ensuring insecurity and heteronormativity. Their representation of space as a resource to be used, a belt of asteroids for humanity to mine and exploit and colonize, feeds into heteronormativity and the idea that the mankind has the right to just dominate and colonize all unknown territory. Take this line from the 1AC. “The appropriation of outer space through asteroid mining by private entities should be banned.” It’s the plan text, and it PROVES the link. They don’t ban asteroid mining as a whole, which means they STILL see space as a resource to be used. They only ban asteroid mining, and not other activities.

Griffin 09 (Penny, Senior Lecturer - Convenor, MA International Relations, ‘The Spaces Between Us: The Gendered Politics of Outer Space’, in Bormann, N. and Sheehan, M. (eds), Securing Outer Space. London and New York: Routledge, pp.59-75.)

The discursive deployment of space as a ‘medium’ suggests that, in US discourse, space exists essentially as a void, an extractable and expendable resource to be used at will (much like the oceans of ‘historical sea commerce’), with the US cast in ‘a classic warfighter role’. The gendered assumptions that underlie this rhetoric are tacit but striking, and depend on two distinct, heteronormative, tropes of masculinization and femi­nization. Firstly, the US’s ability to control ‘space capabilities’ depends upon assumptions of dominance inherent superiority that revolve around the (gendered) signifier of the US’s role as ‘classic’ or ‘active warfighter’: assumptions including the need for speed and watchfulness (‘real time space surveillance’), agility and technical superiority (‘timely and responsive spacelift’), ‘enhanced protection’ (of ‘military and commercial systems’), robustness and efficient repelling capabilities (‘robust negation systems’), ‘precision force’, and ‘enhanced “sensor-to-shooter”’ capabilities. Secondly, in establishing its (heterosexually masculine) credentials, the US’s technostrategic reconfigures all other space-able nations as subordinate, constructing a binary, heterosexual relationship of masculine hegemony/feminine subordination. Tellingly, US Space Command cites the forging of ‘global partnerships’ as essential to protecting US national interests and investments, where such partnerships are at the behest of the US, with those that partner the US ‘warfighter’ little more than passive conduits for US ‘opportunity’ and ‘commerce’ (‘Joint Vision 2020’). This 'warfighting' discourse is not,of course,the only constructionof outer space to possess discursive currency in the US, 'Space exploration', as Crawford argues, 'is inherently exciting, and as such is an obvious vehicle for inspiring the public in general, and young people in particular' (2005: 258). Viewed predominantly as a natural extension [Q the so-called evolution of military and commercial 'arts' in the Western hemisphere, human, technological expansion into outer space is justified in terms of scientific, commercial and militaty global entrepreneurship.Conquering the final frontier of outer space is increasingly seen as crucial to a state's pre-eminence in the global economy(cf. 'Joint Vision 2020'). International alliances in the post-Fordist economy 'have already consolidated the decision for future space exploration and colonization' (Casper and Moore 1995: 315). In a particularly dramatic turn of phrase, Seguin argues that '(mJankind (sic] now stands at the threshold of long-duration space habi­ tation and interplanetary travel' (2005: 980). Similarly, Manzey describes human missions to Mars less as contingent future events, but as the inevitable consequences of technological progress (Manzey 2004: 781-790). Space, once defined as a power-laden site of Cold War military conflict, has also become a site of international political and economic cooperation. Often conceptualized in expansionist terms, as that which will make our world bigger, with space 'discovery' expanding human knowledge, space is also conceived of as that which will make the world smaller, in neo-liberal globalization terms, 'by reconfiguring capitalism and nationalism' (Casper and Moore 1995: 315). The US' 'warfighting' discourse is also at odds with much so-called 'space law', in particular the Outer Space Treary (967), which defines space as the 'province ofall mankind' and asks that states act 'with due regard to the corre­ sponding interests of States Parties to the Treaty' (Bready 2005: 16-17). Within the US itself, congressionally-led efforts to discuss and minimize the threats posed by human-made debris caught in Low Earth Orbit (LEO), of which there is somewhere in the region of 2,300 metric tons (ibid.: 9), appear ill-matched with clear efforts by US government to increase the weaponization of space. The US cooperates, to a limited extent, in perpetuating a sustainable space environment for its satellite-based systems, to which space debris undoubtedly poses a threat, because this is of direct individual benefit to US commercial interests. The US refuses, however, to ratifY the Comprehensive Test Ban Treaty (CTBT), prohibiting all use of nuclear explosions in space, since this constitutes a restriction of its ability to develop and test 'new' weapons. US critics of the CTBT contend that ratifYing the treaty would 'undercut confidence in the US deterrent', and thus increase 'the incentive for rogue states to obtain nuclear weapons' (Medalia 2006: 13). All this is not to argue thatdominant 'scientific' and 'commercial' justifications for space exploration, which are perhaps less overtly related to the militarization of space (for example, concerning advances in medicine, mole­ cular and cellular biology, geology, weather forecasting, robotics, electronics and so on), do not in their basic assumptions alsoembody a gendered sense of 'man's' natural right to colonize so-called unknown territory **(see, e.g. Morabito 2005).** The 'quest for knowledge' remains deeply embedded in Western accounts of the need for space colonization (as Bush's 2004 speech makes clear), rationalized from humanity's so-called 'natural' desire to explore and conquer (cf, Bush 2004; Crawford 2005; Mendell 2005). Craw­ ford, in proposing a case for the 'scientific and social' importance of human space exploration, suggests that, there are reasons for believing that as a species Homo sapiens is geneti­ cally predisposed towards exploration and the colonisation of an open frontier. Access to such a frontier, at least vicariously, may be in some sense psychologically necessary for the long-term wellbeing of human societies. (Crawford 2005: 260) Similarly, NASA's website claims that 'from the time of our birth, humans have felt a primordial urge to explore', to 'blaze new trails, map new lands, and answer profound questions about ourselves and O l l [ universe' ([www.nasa.gov](http://www.nasa.gov/)). Much commercial gain already depends on the exploitation of outer space, but there is undoubtedly more to be made of space's 'resources': 'asteroidal' mining, for example; the extraction of 'lunar soil oxygen'; the mining of from lunar soil as fuel for nuclear fusion reactors; or space**, and particularly the Moon,** as a 'tourist venue', offering all kinds of new 'sporting opportunities' (Morabito 2005: 5-7), Butthe lines distinguishing the various components of theouter space'whole'are vague, and are particularly obscured by the tacit but pervasive heteronormativity that makes of space (to borrow the language of the then USSPACECOM) a 'medium' to be exploited; the passive receptacle of US terrestrial 'force', As Goh states, outer space 'is an arena of growing economic and technological importance, It is also a developing theatre of military defence and warfare' (2004: 259), US outer space discourse is driven by the belief that outer space exists to be conquered (and that it rarely fights back), that those at the cutting edge of its exploitation are the 'visionaries' and 'entrepreneurs' that will pave the way to tourists, explorers, TV crews and to, as Morabito claims, 'dubious characters' such as, perhaps, 'bounty hunters' (2004: 10).

#### The discourse surrounding and developing “outer space” adopts a heavily gendered rhetoric, the desire to dominate space re-enforcing the stereotypical and unfortunately universal ideologies of domination that have been tied to the notion of masculinity.

Griffin 09 (Penny, Senior Lecturer - Convenor, MA International Relations, ‘The Spaces Between Us: The Gendered Politics of Outer Space’, in Bormann, N. and Sheehan, M. (eds), Securing Outer Space. London and New York: Routledge, pp.59-75.)

This chapter is about sex, but not the sex that people already have clarity about. 'Outer space' as a human, political domain is organized around sex, but a 'sex' that is tacitly located, and rarely spoken, in official discourse. The poli­tics of outer space exploration, militarization and commercialization as they are conceived of and practiced in the US, embody a distinction between public and private (and appropriate behaviours, meanings and identities therein) highly dependent upon heteronormative hierarchies of property and propriety.1 The central aim of this chapter is to show how US outer space discourse, an imperial discourse of technological, military and commercial superiority, configutes and prescribes success and successful behaviour in the politics of outer space in particularly gendered forms. US space discourse is, I argue, predicated on a heteronormative discourse of conquest that reproduces the dominance of heterosexual masculinity(ies), and which hierarchically orders the construction of other (subordinate) gender identities. Reading the politics of outer space as heteronormative suggests that the discourses through which space exists consist of institutions, structures of understanding, practical orientations and regulatory practices organized and privileged around heterosexuality. As a particularly dominant discursive arrangement of outer space politics, US space discourse (re)produces meaning through gendered assumptions of exploration, colonization, economic endeavour and military conquest that are deeply gendered whilst presented as universal and neutral. US space discourse, which dominates the contemporary global politics of outer space, is thus formed from and upon institutions, structures of understanding, and practical orientations that privilege and normalize heterosexualiry as universal. As such, the hegemonic discursive rationalizations of space exploration and conquest ,re)produce both heterosexuality as 'unmarked' (that is, thoroughly normal­ ized) and the heterosexual imperatives that constitute suitable space-able people, practices and behaviours. As the introduction to this volume highlights, the exploration and utilization of outer space can thus far be held up as a mirror of, rather than a challenge to, existent, terrestrially-bound, political patterns, behaviours and impulses. The new possibilities for human progress that the application and *development of space* technologies dares us to make are grounded only in the *strategy­ obsessed* (be it commercially, militarily or otherwise) *realities of contemporary global politics*. Outer space is a conceptual, political and material space, a place for collisions and collusions (literally and metaphorically) between objects, ideas, identities and discourses. Outer space, like international relations, is a global space always socially and locally embedded. *There is nothing 'out there' about outer space. It exists because of* us, not in spite of us, and it is this that means that it only makes sense in social terms, that is, in relation to our own *constructions* of identity and social location. In this chapter, outer space is the problematic to which I apply a gender analysis; an arena wherein past, current and future policy-making is embedded in relation to certain performances of power and reconfigurations of identity that are always, and not incidentally, gendered. Effective and appropriate behaviour in the politics of ourer space is configured and prescribed in particularly gendered forms, with heteronormative gender regulations endowing outer space's hierarchies of technologically superior, conquesting performance with theif everyday power. It is through gender that US techno-strategic and astro-political discourse has been able to (re)produce outer space as a heterosexualized, masculinized realm.

#### The aff’s gendered security discourse relies upon masculinized assumptions of state behavior - this simultaneously reinforces dominant conceptualizations of war that obscure ongoing structural violence.

Sjoberg 13 (Laura, associate professor of Political Science @ University of Florida, University of Chicago; Ph.D., University of Southern California School of International Relations; J.D. Boston College Law School, “Gendering Global Conflict : Toward a Feminist Theory of War,” Gendered Lenses Look at War(s), online book, CMR)\*male replaced by men

At the same time, a distinct tradition, feminist security studies (FSS), has recently become interested in thinking in depth not only about the relationships between women and security but about gender/genderings and security issues\_l03 Rather than “add women and stir,”l04 FSS works on “analysis of masculinities and femininities in security situations, and how those gender-associated values and characteristics inﬂuence (and are influenced by) people understood as men and women, rather than in the study of the (assumed) differences between men and women.”‘°5 Although this sort of thinking about the relationship between security and gender differs from traditional understandings of women and peace as linked, it does have its roots in some early feminist theorizing. Theorists from Mary Wollstonecraft“ and Virginia Woolf‘°7 to feminist philosophers of sciencel08 and feminist economists‘°9 have reflected on the nature of gender, the nature of war, and their intersections. In the 19805, feminist scholars began to explicitly consider the links between gender subordination and war. For example, Betty Reardon characterized the global political arena as functioning as a “war system” dominated by the links between sex and violence.“0 It was Reardon’s understanding that stopping violence and stopping gender subordination were necessarily interdependent. Sara Ruddick also related gender subordination and war, albeit from a different perspective. She understood motherhood as a role that imbued women as an interest in peace in order to protect their children from violence.“ Brigit Brock-Utne argued that women had an intrinsic interest in peace, but distinguished negative peace (the lack of war) and positive peace (security and freedom from want and need), and saw women’s interest as being in the latter“? Other feminists, building on Brock-Utne’s argument, suggest the idea that “war” and “peace” can be viewed dichotomously is unrepresentative of human experience. Jean Elshtain argued that the war/peace dichotomy is as gender subordinating as the public/private dichotomy, in that it hides the risks to women in the “in between” or “peace” times.“3 These reflections spurred a significant amount of feminist work on the relationship between gender, nation, and violence. For example, in the late 1980s, Nira Yuval-Davis explained that “a proper understanding of either [gender or nation] cannot afford to ignore the ways that they are informed and constructed by each other.”“4 Cynthia Enloe then linked the gendering of war and militarism to society-wide gendered dynamics, demonstrating that militaries depend on the “cheap, often unpaid” labor of women to do recruiting work, logistical work, sexual service, and morale maintenance\_“5 Enloe saw the “ideology of militarism” as gendered, and argued for a strategy of looking for and at women to understand militarism.“5 She contends that “by looking at women we can reveal, not only the spreading institutional encroachment of the military, but also the processes by which that spread becomes publicly legitimized.”“7 She sees this as key because we take militarism for granted “without an investigation of how militarism feeds on masculinist values to sustain it,”“8 especially insomuch as “mi|itaries need women-but they need women to behave as the gender ‘women.’”“9 Accordingly, much of the scholarship that looks at security from a feminist perspective has focused on understanding how gendered states produce and are produced by gendered militarisms. For example, in 1992, V. Spike Peterson edited Gendered States, which focused on “reframing traditional constructs-states, sovereignty, political identity, security”‘2° in order to reveal “the role that gendered divisions of labor and power play in the deﬁnition and maintenance of the state and its functions.”l2l Recognizing that ‘‘national security and military might are preeminently masculine activities and have long been dominated by men actors,” feminist scholars seek “new understandings of security in the face of systemic gendered violence (war, rape, domestic violence)’’ in order to bring attention to “the security issue of the relationship between sexual and international violence.”‘22 This work looks both to broaden the referent of “security” as well as ideas about what makes that referent “secure\_”l23 In that sense, feminisms share goals with the critical approaches to security discussed in chapter 1.124 Yet feminisms also intervene in the discourses of critical approaches to security to highlight the roles of gender tropes, gender significations, gender dynamics, and gendered power invisible in but crucial to even critical security stories. This research has revealed gender bias in dominant conceptualizations of core concepts such as the state, violence, war, peace, and even security itself, and encouraged redefinition of those concepts in gender-emancipatory ways.l3l Accordingly, feminist work has looked to rethink the gendered functioning of the state,l32 violence,l33 war,l34 and peace135 with the aim of applying new insights to speciﬁc security issues. It has applied gendered analysis of security to the crisis in Bosnia,136 African peacekeeping operations,l37 civil-military relations in South Korea,138 and the wars in |raq.‘39 Feminists interested in security have also studied specific tools of war and coercive diplomacy, including small arms and light weapons,l40 weapons of mass destruction,l41 nuclear proliferation,l42 military technological advances,l43 and economic sanctions.l44 They have identified gender-based language and assumptions at the foundations of debates about nuclear strategy,l45 the noncombatant immunity princip|e,l45 peacekeeping,147 and various aspects of militarization and soldiering.148 In addition to critiquing concepts traditionally employed in the study of security, “gender-based perspectives have also uncovered new empirical knowledge about sexual violence in war, and gendered participation in armed conflict.”‘49

#### The alt is to reject the rhetoric behind the aff. We have to interrupt the gendered ways in which outer space has been represented. The alt opens the way for a non-conforming, ungendered reconceptualization of security. Gendered security discourse ensures violence, the suffering of the marginalized, and locks in extinction – endless cycles of violence from securitized events will inevitably culminate in extinction. This means we control the root to all of the aff’s impacts. If we don’t solve for the representations of extinction, it’ll be inevitable no matter WHAT the aff does.

Shepherd, 07 [Laura J., Department of Political Science and International Studies, University of Birmingham, “Victims, Perpetrators and Actors’ Revisited:1 Exploring the Potential for a Feminist Reconceptualisation of (International) Security and (Gender) Violence,” BJPIR: 2007 VOL 9, 239–256]

As Spike Peterson and Jacqui True comment, ‘our sense of self-identity and security may seem disproportionately threatened by societal challenge to gender ordering’ (Peterson and True 1998, 17). That is, the performance of gender is immanent in the performance of security and vice versa, both concern issues of ontological cohesion (as illustrated in Table 2). Taking this on board leads me to the conclusion that perhaps security is best conceived of as referring to ontological rather than existential identity effects. Security, if seen as performative of particular configura- tions of social/political order, is inherently gendered and inherently related to violence. Violence, on this view, performs an ordering function—not only in the theory/practice of security and the reproduction of the international, but also in the reproduction of gendered subjects. Butler acknowledges that ‘violence is done in the name of preserving western values’ (Butler 2004, 231); that is, the ordering function that is performed through the violences investigated here, as discussed above, organises political authority and subjectivity in an image that is in keeping with the values of the powerful, often at the expense of the marginalised. ‘Clearly, the west does not author all violence, but it does, upon suffering or anticipating injury, marshal violence to preserve its borders, real or imaginary’ (ibid.). While Butler refers to the violences undertaken in the protection of the sovereign state—violence in the name of security—the preservation of borders is also recognisable in the conceptual domain of the inter- national and in the adherence to a binary materiality of gender. This adherence is evidenced in the desire to fix the meaning of concepts in ways that are not challenging to the current configuration of social/political order and subjectivity, and is product/productive of ‘the exclusionary presuppositions and foundations that shore up discursive practices insofar as those foreclose the heterogeneity, gender, class or race of the subject’ (Hanssen 2000, 215). However, the terms used to describe political action and plan future policy could be otherwise imagined. They could ‘remain that which is, in the present, never fully owned, but always and only redeployed, twisted, queered from prior usage and in the direction of urgent and expanding political purposes’ (Butler 1993, 228). The concepts both produced by and productive of policy could reflect an aversion to essentialism, while recognising that strategic gains can be made through the temporary binding of identities to bodies and constraining of authority within the confines of the territorial state. This is, in short, an appeal to a politics of both/and rather than either/or. Both the state (produced through representations of security and vio- lence) and the subject (produced through representations of gender and violence) rely on a logic of sovereignty and ontological cohesion that must be problematised if alternative visions of authority and subjectivity are to become imaginable. International Relations as a discipline could seek to embrace the investigation of the multiple modalities of power, from the economic to the bureaucratic, from neo- liberal capitalism to the juridical. Rather than defending the sovereign boundaries of the discipline from the unruly outside constituted by critical studies of develop- ment, political structures, economy and law, not to mention the analysis of social/ political phenomena like those undertaken by always-already interdisciplinary feminist scholarship, IR could refuse to fix its own boundaries, and refuse to exercise sovereign power, in terms of authority, over the meanings of its objects of analysis. Future research on global politics could look very different if it were not for the inscription of ultimately arbitrary disciplinary borderlines that function to constrain rather than facilitate understanding. It may seem that there is a tension between espousing a feminist poststructural politics and undertaking research that seeks to detail, through deconstruction, the ways in which particular discourses have failed to manifest the reforms needed to address security and violence in the context of gendered subjectivity and the constitution of political community. In keeping with the ontological position I hold, I argue that there is nothing inherent in the concepts of (international) security and (gender) violence that necessitated their being made meaningful in the way they have been. Those working on policy and advocacy in the area of security and violence can use the reconceptualisation I offer ‘to enable people to imagine how their being-in-the-world is not only changeable, but perhaps, ought to be changed’ (Milliken 1999, 244). As a researcher, the question I have grown most used to hearing is not ‘What?’ or ‘How?’ but ‘Why?’. At every level of the research process, from securing funding to relating to the academic community, it is necessary to be able to construct a convincing and coherent argument as to why this research is valuable, indeed vital, to the field in which I situate myself. A discursive approach acknowledges that my legitimacy as a knowing subject is constructed through discursive practices that privilege some forms of being over others. In the study of security, because of the discursive power of the concept, and of violence, which can quite literally be an issue of life and death, these considerations are particularly important. Further- more, as a result of the invigorating and investigative research conducted by exemplary feminist scholars in the field of IR,17 I felt encouraged to reclaim the space to conduct research at the margins of a discipline that itself functions under a misnomer, being concerned as it is with relations inter-state rather than inter- national. As Cynthia Enloe has expressed it, To study the powerful is not autocratic, it is simply reasonable. Really? ... It presumes a priori that margins, silences and bottom rungs are so natu- rally marginal, silent and far from power that exactly how they are kept there could not possibly be of interest to the reasoning, reasonable explainer (Enloe 1996, 188, emphasis in original). If this is the case, I am more than happy to be unreasonable, and I am in excellent company.

## Case

**There will be no “space war” – nobody wants space to go nuclear – stop securitizing threats that just won’t happen.**

Bowen 18 (https://www.europeanleadershipnetwork.org/commentary/the-art-of-space-deterrence/)

Fourth, the ubiquity of space infrastructure and the fragility of the space environment may create a degree of existential deterrence. As space is so useful to modern economies and military forces, a large-scale disruption of space infrastructure may be so intuitively escalatory to decision-makers that there may be a natural caution against a wholesale assault on a state’s entire space capabilities because the consequences of doing so approach the mentalities of total war, or nuclear responses if a society begins tearing itself apart because of the collapse of optimised energy grids and just-in-time supply chains. In addition, the problem of space debris and the [political-legal hurdles to conducting debris clean-up](https://doi.org/10.1080/14777622.2014.890489) operations mean that even a handful of explosive events in space can render a region of Earth orbit unusable for everyone. This could caution a country like China from excessive kinetic intercept missions because its own military and economy is increasingly reliant on outer space, but perhaps not a country like North Korea which does not rely on space. The usefulness, sensitivity, and fragility of space may have some existential deterrent effect. [China’s catastrophic anti-satellite weapons test in 2007](https://defenceindepth.co/2017/01/11/chinas-space-weapons-test-ten-years-on-behemoth-pulls-the-peasants-plough/) is a valuable lesson for all on the potentially devastating effect of kinetic warfare in orbit.

#### No collisions - the probability for actual collision in space is extremely low – below 0.1% chance. It’ll stay this way as long as NASA’s actions in the squo are the same. Also, nonunique –existing space debris would cause collision and war.

**Salter 16** (<https://www-cdn.law.stanford.edu/wp-content/uploads/2017/11/19-2-2-salter-final_0.pdf>)

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. Given the possibility of high future costs, private and public actors should, for their own benefit, direct attention to the space debris problem now. Global satellite revenue in 2014 totaled $195.2 billion.6 That stream of economic activity is most threatened by significantly increased concentrations of space debris in orbit. Other activities within the “space economy” ($320 billion in revenue in 2013) that are potentially threatened include human spaceflight and nonorbital spacecraft.7 Private-sector space activities planned for the more distant future, including space tourism and asteroid mining, will also be affected if access to orbit is complicated by space debris.

**Time frame – Kessler effect 200 years away while structural issues rage on NOW.**

**Stubbe 17** [(Peter, PhD in law @ Johann Wolfgang Goethe University Frankfurt) “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

#### Alt cause to collision - space exploration and development from non-private entities. Even if private entities are banned, government agencies will still be present. The ones listed in the card are only in the U.S – other international agencies also exist.

Georgetown Law 20 (https://guides.ll.georgetown.edu/c.php?g=1037047&p=7762102)

In addition to the [NASA](https://www.nasa.gov/), which is responsible for the U.S. civilian space program and for aeronautical and space-related research, many other U.S. federal agencies are involved in the development of space policy and in the regulation of space-related activities.  Listed below are links to the websites of selected federal agencies that play a significant role in formulating and implementing U.S. space policy, particularly as it relates to national security and to the emerging commercial space industry. U.S. Department of Commerce The Commerce Department helps to promote economic growth by gathering economic and demographic data to facilitate decision making by government agencies and private industry, and by helping to establish uniform scientific and industrial standards. National Oceanic and Atmospheric Administration NOAA is a scientific agency within the Department of Commerce. [Office of Space Commerce](https://www.space.commerce.gov/) This NOAA office coordinates the development of [commercial space policy](https://www.space.commerce.gov/policy/noaa-commercial-space-policy/) within the Department of Commerce.  Its mission is to facilitate the development of emerging space-related industries. [National Environmental Satellite, Data, and Information Service](https://www.nesdis.noaa.gov/) The NESDIS manages data and information collected by meteorological satellites. [Commercial Remote Sensing Regulatory Affairs](https://www.nesdis.noaa.gov/CRSRA/licenseHome.html) The CRSRA licenses the commercial use of remote sensing satellite technologies, which collect images of the Earth's surface and related data, by individuals and entities who are subject to the jurisdiction of the U.S. [National Telecommunications and Information Administration](https://www.ntia.doc.gov/) The NTIA is a scientific agency within the Department of Commerce.  Along with the [Federal Communications Commission (FCC)](https://www.fcc.gov/engineering-technology/policy-and-rules-division/general/radio-spectrum-allocation), an independent agency, the NTIA is jointly responsible for allocating the [radio spectrum](https://www.ntia.doc.gov/category/spectrum-management) used by telecommunications satellites operated by the federal government and by private industry. U.S. Department of Defense The Defense Department coordinates U.S. national security policy and overseas all branches of the U.S. armed forces. [Assistant Secretary of Defense for Homeland Defense and Global Security](https://policy.defense.gov/OUSDP-Offices/ASD-for-Homeland-Defense-Global-Security/) The ASD is responsible for formulating [national security strategy for outer space](https://policy.defense.gov/OUSDP-Offices/ASD-for-Homeland-Defense-Global-Security/Space-Policy/), among other matters. [U.S. Space Force](https://www.spaceforce.mil/) The newest branch of the U.S. armed forces was established on December 19, 2019, with the signing of the U.S. Space Forces Act, part of the [Defense Authorization Act of 2020](https://www.congress.gov/bill/116th-congress/senate-bill/1790).  It is organized as a military service branch within the Department of the Air Force and is directed by the Chief of Space Operations. U.S. Department of StateThe State Department is responsible for U.S. foreign policy and international relations. [Office of Emerging Security Challenges](https://www.state.gov/bureaus-offices/under-secretary-for-arms-control-and-international-security-affairs/bureau-of-arms-control-verification-and-compliance/office-of-emerging-security-challenges/) This office works cooperatively with U.S. allies on issues of space security and missile defense. [Office of Space and Advanced Technology](https://www.state.gov/bureaus-offices/under-secretary-for-economic-growth-energy-and-the-environment/bureau-of-oceans-and-international-environmental-and-scientific-affairs/office-of-space-and-advanced-technology/) This office helps to formulates policy on a [wide range of topics](https://www.state.gov/key-topics-office-of-space-and-advanced-technology/), including space diplomacy, the commercial development of space resources, and the regulation of artificial satellites, satellite navigation systems, and satellite-based earth observation systems. U.S. Department of Transportation -- Federal Aviation Administration The FAA is a regulatory body within the Department of Transportation. [Office of Commercial Space Transportation](https://www.faa.gov/about/office_org/headquarters_offices/ast/) This FAA office is responsible for regulating the emerging commercial space transportation industry, ensuring its compliance with U.S. international space law obligations, as well as safeguarding public health and safety.  It also recommends changes to applicable federal statutes and regulations.

#### Asteroid mining won’t even happen – we don’t have the ability to. There’s no impact to something that will never happen.

Fickling 20 (https://www.bloomberg.com/opinion/articles/2020-12-21/space-mining-on-asteroids-is-never-going-to-happen)

It’s wonderful that people are shooting for the stars — but those who declined to fund the expansive plans of the nascent space mining industry were right about the fundamentals. Space mining won’t get off the ground in any foreseeable future — and you only have to look at the history of civilization to see why. One factor rules out most space mining at the outset: gravity. On one hand, it guarantees that most of the solar system’s best mineral resources are to be found under our feet. Earth is the largest rocky planet orbiting the sun. As a result, the cornucopia of minerals the globe attracted as it coalesced is as rich as will be found this side of Alpha Centauri. Gravity poses a more technical problem, too. Escaping Earth’s gravitational field makes transporting the volumes of material needed in a mining operation hugely expensive. On Falcon Heavy, the large rocket being developed by Elon Musk’s SpaceX, transporting a payload to the orbit of Mars comes to as little as $5,357 per kilogram — a drastic reduction in normal launch costs. Still, at those prices just lofting a single half-ton drilling rig to the asteroid belt would use up the annual exploration budget of a small mining company. Power is another issue. The international space station, with 35,000 square feet of solar arrays, generates up to 120 kilowatts of electricity. That drill would need a similar-sized power plant — and most mining companies operate multiple rigs at a time. Power demands rise drastically once you move from exploration drilling to mining and processing. Bringing material back to Earth would raise the costs even more. Japan’s Hayabusa2 satellite spent six years and 16.4 billion yen ($157 million) recovering a single gram of material from the asteroid Ryugu and returning it to Earth earlier this month. What might you want to mine from space? Water is an essential component of most earth-bound mining operations and a potential raw material for hydrogen-oxygen fuel that could be used in space. The discovery in October of ice molecules in craters on the Moon was taken as a major breakthrough. Still, the concentrations of 100 to 412 parts per million are extraordinarily low by terrestrial standards. Copper, which typically costs about $4,500 per metric ton to refine, has an average ore grade of about 6,000 ppm. The more promising commodities are platinum, palladium, gold and a handful of rare related metals. Because of their affinity for iron, these so-called siderophile elements mostly sunk toward the metallic core of our planet early in its formation, and are relatively scarce in the Earth’s crust. Estimates of their abundance on some asteroids, such as the enigmatic Psyche 16 beyond the orbit of Mars, suggest concentrations several times higher than can be found in terrestrial mines. Still, human ingenuity is all about cutting our coat according to our cloth. If such platinum-group metals are going to justify the literally astronomical costs of space mining, they’ll need to count on sustained high prices for the decade or so that would be needed to get such an operation up and running — and that sort of situation is all but unheard-of in the materials industry.