# 1NC

## 1

#### Interp and violation: Affirmatives may not defend only specific instances of outer space appropriation by private entities as unjust.

#### "The" can either indicate a definite generic or definite description

Ojeda 91 [Almerindo E. Ojeda, PhD linguistics from UChicago, professor of linguistics at UC Davis. "Definite Descriptions and Definite Generics", Linguistics and Philosophy, Vol. 14, No. 4, pp. 367-397, Published August 1991, https://www.harvardlds.org/wp-content/uploads/2019/04/1-s2.0-S0010027718300313-main-3.pdf] HWIC

A definite noun phrase may be taken either as a definite description or as a definite generic. Thus, a noun phrase like the origin of the ballad may denote either the origin of an individual ballad we have been discussing, or else the origin of ballads in general as a literary species. In the first case, the ballad has been taken as a definite description; in the second, it has been taken as a definite generic.2 Notice that the ambiguity between definite descriptions and definite generics can be resolved in certain con texts. Thus, the definite noun phrase the computer is taken only as a definite description in (la), a statement about an individual computer; it is taken only as a definite generic in (lb), a statement about computers in general. Similarly, the definite noun phrase the dodo may be taken as a definite description in (2a) while it must be taken as a definite generic in (2b).3

(1)a. Turing repaired the computer.

b. Turing invented the computer.

(2)a. The dodo is dead.

b. The dodo is extinct.

#### Moral statements are generic normative principles – necessitates the generic interpretation

McDonald 09 [Hugh P. McDonald, professor of philosophy at the New York City College of Technology. "Principles: The Principles of Principles." The Pluralist, vol. 4, no. 3, [University of Illinois Press, Society for the Advancement of American Philosophy], 2009, pp. 98–126, https://www.jstor.org/stable/20708996] HWIC

"Principle" has a great many meanings: origin, beginning, cause, rule, axiom, and so on.5 However, we cannot assume any necessary relation of these meanings. They may be distinct meanings without relations. Neverthe less we can trace some common roots and thereby interconnections of the meanings. I will concentrate here on certain meanings relevant to the prin ciple of principles, that principles are actual. One meaning is that principles are the "ultimate source, origin, or cause of something" or the "originating or actuating agency or force." Principles are connected with the origin and cause of any "something." Moreover, principles may cause the actuality of the something. A second meaning of principles is that they regulate change, whether internally, as the "method of operation of a thing," or as an external cause. That is, principles are regulative, especially including rules for opera tions, involving changes. As rules, they are universal for a kind, although there may be exceptions to them in certain modes. A principle, then, is an originating rule that universally regulates the formation, operation, or other changes of any actuality, which as universal applies to that kind of thing. Machines may be built according to a principle and operate on the same or even a different principle. Ships presume the principle of floatation but may be built according to principles of woodworking or those of other materials. The principle can have different modes?whether necessary, as in logical inference; general, as in scientific laws; or actualization of possibilities, as in machines or as in moral principles that we follow, but could do otherwise.6 I will cover modes below.

Principles are also a cause as regulative, combining cause and rule. The principle can be external, as in a chemical catalyst; or internal, as in geneti cally caused changes.7 Both kinds of causes involve relations. Internal prin ciples exhibit "tendencies," to borrow the word used in the dictionary. They continue to operate across time. Actions that come under principles may be of kinds whose causes are separate in time, since we may cease an action for a time and then take it up again; while genetic characteristics are tenden cies whose causes are connected by reproduction. As causal, principles may be originary for a kind. Especially in new technologies, for example, flying machines, the principle that organisms could fly (birds, bats, and insects) preceded the invention of the technology, although the principles of aero dynamics were discovered later. However, flying utilized and actualized the latter principles. In this sense, principles can be constitutive rules as the origin of a kind, whether generic or specific.

External principles are regulative and not attributes. They regulate change, such that change is not chaotic. Principles are not bodies, objects, or entities but are the basis of the judgment or evaluation that the latter will persist, since they follow or are regulated by principles. Moreover, there is another sense in which principles are not attributes, since the relation of bodies, ob jects, or other terms for actualities implies a common principle, an identity that is regulated and constituted by the same actual principle. "Object" is a principle uniting instances normatively, for example, that solids persist unless acted upon by heat, etc.

Scientific, engineering, and practical laws are cases of principles. The "law of gravity" is the principle of gravity. Rules of "right conduct" also exhibit laws. Principles form an identity of different instances that fall under the law, whether generally or invariably. Laws and rules are regulative identities, applicable to different instances, and whether originary, constitutive, or ex ternally regulative. Voluntary adherence to a rule is bringing actions in line with a principle or enacting a principle.

Since principles are general, the statement of a principle includes an abstraction of some identity element of the instance. Principles, then, can constitute the elements in any instance insofar as there are identical ele ments, such as matter, species, and genera. This abstraction both identifies the instance as alike with other instances in some respect and differentiates it from those that do not exhibit the principle. The instance may contain several principles conjointly, matter, the state of the matter, function, aes thetic element, and many others. Thus principles connect like instances in a very complex set of relations. A diamond and a painting may share aesthetic qualities but their material, functional, and cultural principles may be quite different. Since identity and difference are correlative terms, every identity is also a difference and this principle applies to actual principles in the world, one principle of principles. To identify a rock of a certain type as consisting in certain chemical combinations connects it with that kind of mineral in general but also certain chemical elements in general, their physical proper ties (such as consisting of a certain atomic number of protons, electrons, and the like), and other principles. However, it also differentiates the rock from other types with their own specific principles, although some generic prin ciples may overlap, namely, the physical properties of all chemical elements as consisting in protons, electrons, and other principles of atoms. Principles then mark both a difference and an identity. The principles identify a distinc tion, but such identifications differentiate from other identifying principles. The wavelengths for green light are identical at different times of emission from the sun but are not identical with those for red.

#### Negate –

**1] Precision:**

**A] Topicality is a constitutive rule of the activity and a basic aff burden, they agreed to debate the topic when they came to the tournament**

**B] Jurisdiction -- you can’t vote affirmative if they haven’t affirmed**

**C] It’s the only stasis point we know before the round so it controls the internal link to engagement, and there’s no way to use ground if debaters aren’t prepared to defend it.**

**2] Limits: every specific instance or combination of instances of appropriation could be an aff like individual missions, programs or satellites, compounded by broad definitions of appropriation – unlimited topics incentivize obscure affs that negs won’t have prep on – limits are key to reciprocal prep burden. This topic already has very few neg generics and spec kills the innovation DA and space appropriation good – also means there is no universal DA to spec affs**

**Drop the debater – their abusive advocacy skewed our 1NC construction, allowing 1AR restart doesn't solve**

**Competing interps on T – topicality is a yes/no question, you can’t be reasonably topical, only competing interps create norms -- reasonability is arbitrary and invites judge intervention causing a race to the bottom of questionable argumentation**

## Fem IR K

The commons link – The aff’s trust in distinctions between the   
“private” and “common” strengthens patriarchal binaries where nature and resources are feminized and causes endless cycles of abuse and destruction. Their plan transfers all of these harms to space – DON’T LET THEM SEVER OUT – them assuming they are giving equal access to everyone in space is the exact kind of thinking that replicates these dynamics.

#### The aff’s trust in distinctions between the “private” and “common” strengthens patriarchal binaries where nature and resources are feminized, leading to never ending abuse and destruction

Sotiropoulou 17

(Irene Sotiropoulou, PhD (Economics), Postgrad Diploma (Development Economics), MA (International & European Studies), LLB (Law); (09/2017 accessed 12-29-2021) “Commons and Private Property as a Patriarchal Trap”; https://www.researchgate.net/publication/323259615\_COMMONS\_AND\_PRIVATE\_PROPERTY\_AS\_A\_PATRIARCHAL\_TRAP)//ckd

What is important: in patriarchy, the propertied thing, that “something” that the owner can use, harvest and abuse or dispose, is by priority the human body and nature, i.e. alive creatures, in many cases very similar to the creature that an owner can be. Well, not all human creatures are very similar according to patriarchy. The patriarchal binaries come into force when ownership and property emerge as an issue: women are supposed to be owned by men, children are supposed to be owned by fathers, black workers are supposed to be owned by the white-owned factory that imposes quasi-slavery working conditions or an entire river ecosystem is supposed to be owned by the state or by the corporation that rules the use of the water that runs through the river (Fraser 2013a, Federici 2004, Borneman 1975, Cassano 2009, Dallacosta & James 1975, Graeber 2006). Particularly, nature in patriarchy is not only objectified and understood as existing for humans and for satisfying their own agenda for survival, artistic expression or for beauty seeking. It is also feminised, so that it can be much easier treated the way women are treated in patriarchy: nature can be propertied by men, used, harvested, abused and then destroyed, as there is “plenty of nature” to proceed with more property owners being receiving what their privilege tells them to expect (BennholdtThomsen et al 1986, Mies & Shiva, Von Werlhof 2007, Sotiropoulou 2017a). 4.2. Common and private property Private property, therefore, is the property that belongs to one person or to one household or to one group of people who, as individuals, have agreed among themselves to own a thing by excluding all other people (like a corporation), and the property is passed down to their patrilineal descendants or relatives with the exclusion of other people or the community. Within this context, I understand the distinction between common and private property as being one more patriarchal binary. In addition, common property is never common enough, either for legal or de facto reasons: a river can be regulated as a common for the people living around or for the state that the river runs through, but not all people have access to the river or even if they have, they do not control what happens with the river, with its fish, with the water used for agricultural or industrial purposes. Even when something is deemed to be a “true” common, like the open sea or open space, the use of the common is practically available to those who have the means to navigate through the open sea or open space and to those who use both the sea and space for disposing their garbage and technological externalities, like accidents with environmental impact. It is not a coincidence that those who are practically able to use the global commons usually belong to social groups that are white, European/AngloSaxon, male, middle or upper class, with ownership of capital and land (Agathangelou & Ling 2006). 6 Why is that? Because even if we “all own the open sea”, the open sea is owned truly by those who have the means of production to travel, fish, extract oil or dispose their waste there. Means of production are owned privately in capitalism and in patriarchy. That is, private property is everywhere, even when the condition or the control of a common is under consideration. Moreover, the common property as an institution and as an idea, allows the establishment of property over nature and bodies. It does not matter that the property is not private or that it is not private yet. Even if it remains common, it is still a property with owners and excluded people, with rights to use, harvest and abuse for some, even if those “some” can be the entire humanity. In addition, it is the “common” that makes private property acceptable at the first place. It is not only that in practice (and in history), we have seen in many cases that the norms and/or legislation turned from regulating the common-propertied bodies (human/nonhuman) to allowing or instituting the exclusive right of the patriarch to those bodies, whether human or nonhuman. The patriarch or the private owner, even if it is a patriarchal substitute like a state, has the right, once a common property comes into existence, to distribute or retain that common property, to exclude from that common property social groups or everyone whom the patriarch/patriarchal substitute does not want to have access to (previously) common or (now) private thing, and to include to its control whomever supports patriarchal rights, like a corrupt politician who gets his share of profit for turning a blind eye to environmental destruction in his area (Mies & Shiva, Bennholdt-Thomsen et al 1988, Pateman 1988, Sugden & Punch 2014). 4.3. Property in patriarchy Historically we have not found any social and economic systems other than patriarchy where land and humans become (common or private) property (Lerner 1986, Mayes 2005, Brosius 2004). However, one would think of patriarchy as a system with property, just for the analytical need to avoid essentialism (like saying that property and patriarchy are the same thing and cannot exist otherwise). In patriarchy, most lands and means of production are owned by men or by patriarchal substitutes, like the state, corporations or women who serve patriarchy in all its aspects. That at some point, ownership might reach a person (man or woman) who is not so patriarchal as patriarchy expects them to be, that does not change the structure of the system as such, despite of the cracks or subversive possibilities that such “unfortunate” coincidence might create (Mayes 2005). Moreover, private property is the default institution concerning economic sharing or economic arrangements. Despite of what the discourse of the commons declares now and then, common property is not the default of a patriarchal system and even if it is at some point in history due to historical conditions that go beyond the usual patriarchal structures, patriarchy will make sure that the common property will be patriarchalised and privatised. 7 Sometimes, the process of patriarchalisation and privatisation go hand in hand. An example is the miri system of common/state lands in the Ottoman Empire, that degenerated as time went by, and as the Empire got more and more patriarchal, militarised and capitalised (Dönmez-Atbaşı & Sotiropoulou 2017). Therefore, privatisation is a systemic trait of patriarchy. Patriarchy is not just the economic system that has private property, but the system that has private property which is aggressively expanding. Privatisation expands formally, informally and through interpretation of the commons as spaces serving private property. Aggressiveness of privatisation is not theoretical only: it uses all types of physical violence to be established, increased, deepened and disseminated (Sotiropoulou 2015, Demsetz 1964, Bennholdt-Thomsen et al 1988, Von Werlhof 2007). Even in the construction of non-tangible properties over previously common goods one can see the violence that was a prerequisite for the private property to be instituted. Knowledge, especially medical knowledge, required a massive witchhunt in Western Europe and United States. The patenting of agricultural genetic material and biopiracy required and still requires colonial violence to exist. The construction of arts and culture or of production of know-how as private properties or even as common properties that need to be managed by certain managers and controlled by certain controllers required the violent exclusion or destruction of artists, communities or entire societies that produced goods, arts or entire cultures in ways that were not compatible with private property and patriarchy (Federici 2004, Mies 1998, Peterson 2003, Ehrenreich & English 1973).

#### Congrats, you bring masculinity to space!

Griffin 09

(Penny, Senior Lecturer in International Relations at UNSW, PhD at University of Bristol, researches IR, global governance, feminism and gender studies, “The Spaces Between Us”, found in “Securing Outer Space” by Natalie Bormann and Michael Sheehan, p. 70, JKS)

¶ Much commercial gain already depends on the exploitation of outer space, but there is undoubtedly more to be made of spaces ‘resources’: ‘asteroidal mining, for example; the extraction of ‘lunar soil oxygen‘; the mining of very rare ‘Helium-3' from lunar soil as fuel for nuclear fusion reactors; or space, and particularly the Moon, as a ‘tourist venue‘, all kinds of new "sporting opportunities’ (Mombito Z005: 5-7). But the lines distinguishing the various components of the outer space are vague, and are particularly obscured by the tacit but pervasive heteronormativity that makes of space (to borrow the language of the then USSPACECONI) a 'medium' to be exploited; the passive receptacle of US terrestrial 'force'. As Goh stares, 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 (‘l:1imS. ‘dubious characters' such us, ‘bounty hunters’ (Z004: IO). Much US outer space discourse presents a vision of the human colonization of outer space as both natural and essential to humanity, a ‘psychological and cultural requirement‘ that is not merely a ‘Western predisposition’, but ‘a human one‘ (Crawford 2005: 260). Regulating such discourse, however, is the normative assumption that space is a ‘masculine’ environment, a territory best suited to the performance of colonial conquest, and an arena for warfare and the display of military and technological prowess. Herein, ‘man’, not woman, is the human model by which to gauge those adventurous enough to engage in the ‘space medium' (see, e.g. Casper and Moore 1995). ‘Sex’ is only explicitly articulated in US space discourse to signal the category of ‘woman’, and the physical and psychological constraints that woman's ‘body' brings to spaceﬂight and exploration. NASA, for example, in identifying ‘gender related' differences affecting the efficacy and effects of spaceﬂight and travel, focus exclusively on the physiological differences between men and women (bone density, blood ﬂow, hormonal and metabolic differences, etc). As Casper and Moore argue, N ASA's heterosexist framings of these issues high light sex in space as a social and scientiﬁc problem (1995: $13). Female bodies are thus ‘constructed against a backdrop in which male bodies are accepted as the norm, an inscription process shaped by the masculine context of space travel' (ibid.: 516). By identifying only ‘woman’ with ‘sex', and the ‘ostensibly sexualized features’ of women's (Butler I990: 26), a certain, heretosexist, order and identity is effectively instituted in US outer space discourse. Fundamentally, the hierarchies of power, identity and cultural and sexual assumption that infuse outer space politics are no different to those that structure terrestrial politics. As Morabito, rather worryingly claims, ‘why expect men on the Moon to behave much better than on Earth?‘ (200-'1: 10).

#### The aff’s drive to prevent extinction is a form of masculine survivalism where gendered bodies become the unwilling tools to sustain humanity. You should refuse their obsession with patriarchal reproduction.

Mitchell 15

(Audra Mitchell, Audra Mitchell is a settler scholar who lives and works on the Ancestral and treaty lands of the Neutral (Attawandaron), Haudenosaunee and Mississaugas of the New Credit (please see Honouring the Land). She currently holds the the Canada Research Chair in Global Political Ecology at Wilfrid Laurier University. From 2015-18 she held the CIGI Chair in Global Governance and Ethics at the Balsillie School of International Affairs Audra is an Associate Professor at Wilfrid Laurier University, Canada, 8-3-2015, "Gendering extinction," Worldly, <https://worldlyir.wordpress.com/2015/08/03/gendering-extinction/>, JKS)

The reproduction of survival/ the survival of reproduction

Extinction is almost always understood against the horizon of survival and the imperative to sustain it – at least for life forms deemed to be of value to humans. In many cases, this imperative takes the form of deliberate strategies for enforcing existence. Donna Haraway’s influential book When Species Meet devotes considerable attention to the logics, practices and politics of Species Survival Plans. These plans monitor and enforce reproduction amongst ‘endangered’ species, not least by collecting data on populations, genetic profiles and genetic materials to enable selective breeding. This strategy assumes that all organisms can, should, and can be made to exercise their reproductive capacities in order to resist extinction, and it actively mobilizes members of ‘endangered species’ into this project. In so doing, it helps to entrench norms regarding gender, sexuality and reproductive labour that are deeply entrenched in modern, Western human cultures. Attention to these programmes highlights an important way in which extinction is gendered in dominant scientific and policy frameworks. Specifically, strategic breeding programmes share in the belief that reproduction is an imperative for those capable of reproducing if ‘the species’ is at risk’. This belief is directly related to Western norms of the reproductive imperative for women. Indeed, Haraway points out that it is precisely “‘woman’s’ putative self-defining responsibility to ‘the species’ as this singular and typological female is reduced to her reproductive function”. In a similar sense, within SSPs and other strategies of enforced survival, entire life forms are reduced to their reproductive capacities. Moreover, programmes of enforced survival can, in the context of sexual reproduction, disproportionately burden female organisms with the task of avoiding extinction. This logic is particularly fraught in discussions of the possibility of human extinction, in which female fertility (captured in the standard policy language of ‘births per woman’) is framed simultaneously as a threat to survival, and the only hope for escaping extinction (see, for instance, Alan Weisman’s comments on this). In these ways, the securitization of survival entrenches the intersectional categories of gender, species and race discussed above. Dominant discourses of extinction and conservation also entrench and privilege sexual reproduction, in ways that entrench heteronormative assumptions and norms. This is reflected in the way that the subjects of extinction and conservation are framed. The standard object of conservation is the biological ‘species’, a term which is defined by the ability of organisms to reproduce sexually. As Myra Hird has pointed out, this conception of ‘species’ makes it appear as if sexual reproduction is the ‘best’ means of sustaining the existence of a life form. However, Hird’s work demonstrates that Earthly life forms actually engage in myriad forms of reproduction, from the free exchange of DNA between bacteria to the hermaphroditic practices of some fish. The upshot of these arguments is that Earthly life is sustained through a huge variety of reproductive activities that do not conform to biological understandings of life processes or species. Crucially, Hird argues that there is no necessary hierarchy between forms of reproduction. In Darwinian terms, all species that manage to survive are equally successful. However, by conflating survival with sexual reproduction, existing discourses of extinction embed hetero-normative frameworks that devalue other forms of reproduction. They also reduce reproduction to the imperative to survive, ignoring the myriad cultural, political, aesthetic, sensual and other dimensions of reproduction.

#### The impact is hypermasculine war-making- claims of objectivity are patently flawed because they are based in gendered decision-making

Sjoberg 13

(Laura, total bae, 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 Chapter: “Relations International and War(s),” Gendered Lenses Look at War(s), googlebooks, JKS)

Feminist scholars have also interrogated the unitary nature of the state, pointing out that efforts to maximize the state's security interests often threaten the security of people inside the state. Specifically, as I discussed in the previous section, the state's most marginalized citizens are often made insecure by state security-seeking, making it clear that a state does not have a single interest in interstate interaction but many that conflict. J. Ann Tickner contends that "an explanation of the historical development of state sovereignty and state identities as they have evolved over time does indeed suggest deeply gendered constructions that have not included women on the same terms as men." This is because, according to Tickner:¶ From the time of their foundation, states have sought to control the right to define political identity. Since their legitimacy has constantly been threatened by the undermining power of subnational and transnational loyalties, states' survival and success have depended on the creation and maintenance of legitimating national identities; often these identities have depended on the manipulation of gendered representation. . . . Drawing on metaphors that evoke matrimonial and familial relations, the nation has been portrayed as both male and female. . . . The sense of community implicit in these family metaphors is deeply gendered in ways that not only legitimate foreign policy practices but also reinforce inequalities between men and women.”¶  ¶ Using these gendered metaphors, the state can, while shoring up its "national interest," both threaten the interest of marginalized citizens inside it and reinforce power inequalities among its groups. Catherine MacKinnon has explained that the "state's structures and actions are driven by and institutionalize strategy based on an epistemic angle of vision" that can "distinguish public from private, naturalize dominance as difference, hide coercion beyond consent, and conceal politics beyond morality.” These structures require a certain standard of behavior from some members of the state,” while suppressing the voices of others altogether.”¶ With these tools, the state can appear unitary by suppressing its diversity and presenting one concept of national interest, autonomous of and not necessarily representative of its citizens. In this understanding, the sovereign state can be "an extension of the separation-minded realist man, also autonomous to various degrees from the diverse 'domestic' interests he-it allegedly exists to protect.” Additionally, states are complicit with gender subordination when they fail to intervene in domestic violence, perpetuate a heterosexist bias in education, exercise discrimination in welfare policies, and operate on patriarchal laws.” ¶ In this conception, the unitary state is a misleading and malignant construction. Two implications for the process of state interaction follow; states that interact often promote unrepresentative interests, and those unrepresentative interests exclude gender, racial, and cultural minorities. In this sense, states' elites often make wars (or fail to) "representing" a limited group or groups among their populations, while claiming full representativeness, effectively rendering a significant portion of their supposed "constituency" invisible in the process of interacting with other states. Empirically, this means that there are a number of levels of interstate interaction, many of which are omitted from process-based notions of dyadic war theorizing. Normatively, it suggests that our conceptions of how states interact (and the content of those interactions) are problematically skewed.¶ Rationality in Interaction This skew is particularly evident in the assumption of rationality." The rationality assumption implies that the knower/actor can separate himself/herself from the “other” in interactions with that other. Feminists have argued that knowledge is always perspectival and political; therefore, states and their leaders’ decisions about how to interact with others are not rational, but informed by their situational and political biases. In this view, the rationality assumption may be seen as at once itself a political bias and obscuring other political biases. As Naomi Scheman argues, perceived rational cost-beneﬁt analysis about war-making and war-fighting should “always be seen as especially problematical when... constructed only by those in positions of privilege... [which provide] only distorted views about the world.”78 In this view, rational calculation is not an objective, attainable, and desirable end, but a partial representation of both interest and actors’ representation of those interests. In this way, through gender lenses, rationality has been seen as importantly incomplete, leaving out signiﬁcant (if not the most significant) factors that go into decision-making.79 In addition to understanding the rationality assumption as partial (and therefore unrepresentative), feminist research has pointed out links between rationality and mascuIinism.8° As Karen Jones notes, advocates of rationality as a guide for interstate interactions“ assume: 1. Available... conceptions of rationality and reason represent genuinely human norms and ideals; 2. The list of norms and ideals contained within available conceptions of rationality and reason are sufficiently complete; and 3. The external normative functions assigned to reason and rationality are unproblematic.82 Looking through gender lenses shows problems with each of these assumptions. Feminists have argued that “the identity of the modern subject-in models of human nature, citizenship, the rational actor, the knowing subject, economic man, and political agency-is not gender-neutral but masculine (and typically European and heterosexua|).”83 This impacts not only how we see the rational subject, but how we predict and understand his decisions, at the state level as well as at the individual level. According to Margaret Atherton, the possibility of rationality has “been used in a disturbing fashion to mark a gender distinction. We have, for example, on the one hand, the man of reason, and, on the other, the woman of passion.”84 In rationality assumptions, traits associated with masculinity are normalized and traits associated with femininity are excluded. The impact is compounded because (masculinized) rationality and its (feminized) alternatives are not on equal playing ﬁelds. As a result, Karen Jones notes that “women’s assumed deficiency in rationality” has been used to exclude both women and knowledge associated with femininity from accepted views of the world.85 The alleged gender neutrality of rationality, then, “is often a covert form of privileging maleness”85 and omission of “what has traditionally counted as ‘feminine.’”87 Still, adding women and values associated with femininity to current concepts of rationality is unlikely to create a gender-neutral concept of rationality.88 This is because, epistemologically, the sovereign rational subject constructs artificial gendered boundaries between rationality and emotion, male and female, and knower and known.89 Among states, those boundaries are not benign. Instead, they breed competition and domination that inspire and foster war(s) and conﬂict(s).90 This competition frequently relies on contrasting the state’s own masculinity to the enemy’s (actual or perceived) femininity. This cycle of genderings is not a series of events but a social continuum. In these gendered relationships, as Zillah Eisenstein argues, “gender differentiation will be mobilized for war and peace,” especially moving forward into the age of an American empire focused on manliness.9‘ Feminists have long argued that competitions between hegemonic masculinities and subordinate masculinities play a role in causing war(s).92 Hidden beneath the assumed independence, rationality, and unity of state interaction leading to war are gendered interstate interactions that cause, constitute, and relate to war and wars. Feminist scholars have recognized the extent to which the preeminence of masculine values dominates (particularly conﬂictual) accounts of interstate interactions, wherein “rational” interactions often become “a self-reproducing discourse of fear, suspicion, anticipated violence, and violence” in which “force is used to checkmate force.”93 Interstate interactions leading to wars often show the gendered nature of war narratives, war logics, and war languages, which produce (and reproduce) gendered cycles of violence.

#### The alternative is to reject the aff in favor of an ontological revisionism that deconstructs the myth of the masculine western subject. This is a politics that destabilizes the masculine subject by revealing how its false universality underwrites gender violence globally

Youngs 04

(Gillian, Professor of Digital Economy at the University of Brighton, Feminist International Relations: a contradiction in terms? Or: why women and gender are essential to understanding the world ‘we’ live in\*, International Affairs, 80, pgs 77-80, JKS)

This discussion will demonstrate, in the ways outlined above, the depth and range of feminist perspectives on power—a prime concern of International Relations and indeed of the whole study of politics. It will illustrate the varied ways in which scholars using these perspectives study power in relation to gender, a nexus largely disregarded in mainstream approaches. From feminist positions, this lacuna marks out mainstream analyses as trapped in a narrow and superficial ontological and epistemological framework. A major part of the problem is the way in which the mainstream takes the appearance of a pre- dominantly male-constructed reality as a given, and thus as the beginning and end of investigation and knowledge-building. Feminism requires an ontological revisionism: a recognition that it is necessary to go behind the appearance and examine how differentiated and gendered power constructs the social relations that form that reality. ¶ While it may be empirically accurate to observe that historically and contemporaneously men have dominated the realms of international politics and ¶ economics, feminists argue that a full understanding of the nature of those realms must include understanding the intricate patterns of (gendered) inequalities that shape them. Mainstream International Relations, in accepting that because these realms appear to be predominantly man-made, there is no reason to ask how or why that is the case, stop short of taking account of gender. As long as those who adhere to this position continue to accept the sufficiency of the appearances and probe no further, then the ontological and epistemological limitations will continue to be reproduced. ¶ Early work in feminist International Relations in the 1980s had to address this problem directly by peeling back the masculinist surface of world politics to reveal its more complex gendered (and racialized) dynamics. Key scholars such as Cynthia Enloe focused on core International Relations issues of war, militarism and security, highlighting the dependence of these concepts on gender structures—e.g. dominant forms of the masculine (warrior) subject as protector/conqueror/exploiter of the feminine/feminized object/other—and thus the fundamental importance of subjecting them to gender analysis. In a series of works, including the early Bananas, beaches and bases: making feminist sense of international politics (1989), Enloe has addressed different aspects of the most overtly masculine realms of international relations, conflict and defence, to reveal their deeper gendered realities.3 This body of work has launched a powerful critique of the taboo that made women and gender most invisible, in theory and practice, where masculinity had its most extreme, defining (and violent) expression. Enloe’s research has provided one of the most comprehensive bodies of evidence for the ontological revisionism required of mainstream International Relations, especially in relation to its core concerns. ¶ When Enloe claimed that ‘gender makes the world go round’,4 she was in fact turning the abstract logic of malestream International Relations inside out. This abstract logic saw little need to take theoretical and analytical account of gender as a social force because in practical terms only one gender, the male, appeared to define International Relations. Ann Tickner has recently offered the reminder that this situation persists: ‘During the 1990s, women were admitted to most combat positions in the U.S. military, and the U.S. president appointed ¶ the first female secretary of state, but occupations in foreign and military policy- making in most states remain overwhelmingly male, and usually elite male.’5 ¶ Nearly a decade earlier, in her groundbreaking work Gender in International Relations: feminist perspectives on achieving global security,6 she had asked the kinds of questions that were foundational to early feminist International Relations: ‘Why is the subject matter of my discipline so distant from women’s lived experiences? Why have women been conspicuous only by their absence in the worlds of diplomacy and military and foreign policy-making?’ Tickner, like Enloe, has interrogated core issues in mainstream International Relations, such as security and peace, providing feminist bases for gendered understanding of issues that have defined it. Her reflection on what has happened since Gender in International Relations was published indicates the prominence of tensions between theory and practice. ‘We may have provided some answers to my questions as to why IR and foreign policymaking remain male-dominated; but breaking down the unequal gender hierarchies that perpetuate these androcentric biases remains a challenge.’7 ¶ The persistence of the overriding maleness of international relations in practice is part of the reason for the continued resistance and lack of responsiveness to the analytical relevance feminist International Relations claims. In other words, it is to some extent not surprising that feminist International Relations stands largely outside mainstream International Relations, because the concerns of the former, gender and women, continue to appear to be subsidiary to high politics and diplomacy. One has only to recall the limited attention to gender and women in the recent Afghanistan and Iraq crises to illustrate this point.8 So how have feminists tackled this problem? Necessarily, but problematically, by calling for a deeper level of ontological revisionism. I say problematically because, bearing in mind the limited success of the first kind discussed above, it can be anticipated that this deeper kind is likely to be even more challeng- ing for those in the mainstream camp. ¶ The second level of ontological revisionism required relates to critical understanding of why the appearance of international relations as predominantly a sphere of male influence and action continues to seem unproblematic from mainstream perspectives. This entails investigating masculinity itself: the nature of its subject position—including as reflected in the collective realm of politics— and the frameworks and hierarchies that structure its social relations, not only in relation to women but also in relation to men configured as (feminized) ‘others’ ¶ because of racial, colonial and other factors, including sexuality. Marysia Zalewski and Jane Parpart directly captured such an approach as ‘the “man” question in international relations’.9 I would like to suggest that for those sceptical about feminist International Relations, Zalewski’s introductory chapter, ‘From the “woman” question to the “man” question in International Relations’, offers an impressively transparent way in to its substantive terrain.10 Reflecting critically on the editors’ learning process in preparing the volume and working with its contributors, both men and women, Zalewski discusses the various modifications through which the title of the work had moved. These included at different stages the terms ‘women’, ‘masculinity’ and ‘feminism’, finally ending with ‘the “man” question’—signalling once again, I suggest, tensions between theory and practice, the difficulty of escaping the concrete dominance of the male subject position in the realm of international relations. ¶ The project’s starting point revealed a faith in the modernist commitment to the political importance of bringing women into the position of subjecthood. We implicitly accepted that women’s subjecthood could be exposed and revealed in the study and practice of international relations, hoping that this would also reveal the nature of male dominance and power. Posing the ‘man’ question instead reflects our diminishing belief t

hat the exclusion of women can be remedied by converting them into subjects.11 ¶ Adding women appeared to have failed to ‘destabilize’ the field; so perhaps critically addressing its prime subject ‘man’ head-on could help to do so. ‘This leads us to ask questions about the roles of masculinity in the conduct of international relations and to question the accepted naturalness of the abundance of men in the theory and practice of international relations’ (emphasis added).12 ¶ The deeper level of ontological revisionism called for by feminist Inter- national Relations in this regard is as follows. Not only does it press beyond the appearance of international relations as a predominantly masculine terrain by including women in its analysis, it goes further to question the predominant masculinity itself and the accepted naturalness of its power and influence in collective (most significantly state) and individual forms.

#### The K comes first - policies are constituted by and produce subjects, not blanket assessments of outcomes and impacts. The ROB is to interrogate the gendered nature of the 1AC as a research project.

Bacchi 16

(Carol, University of Adelaide, Adelaide, South Australia, Australia, (2016): Policies as Gendering Practices: Re-Viewing Categorical Distinctions, Journal of Women, Politics & Policy, DOI: 10.1080/1554477X.2016.1198207, JKS)

One important constitutive effect is how we are produced as subjects through the problematizations implicit in such texts, a process described as “subjectification” (Bacchi 2009, 16–17). For example, Foucault (1980) argues that specific problematizations of sexuality (e.g., sexuality as moral code, sexuality as biological imperative) create “subject positions” that enjoin people to become particular kinds of sexual subjects (see Howarth and Griggs 2012, 308). Marston and McDonald (2006) describe how individual subjects are produced in specific policy practices “as worker-citizens in workfare programs, as parent-citizens in child and family services or consumer-citizens in a managerial and marketized mixed economy of welfare” (3). Given the proliferation of practices, the formation of one’s subjectivity is an ongoing and always incomplete process: “the doer/subject/person is never fixed, finally as a girl or a woman or whatever, but always becoming or being” (Jones 1997, 267). Subjectification effects therefore are neither deter- mined nor predictable. People sometimes take up subject positions in ways that challenge hierarchical relations. For example, the discourse of rights creates as one possible positioning that of the human rights advocate. Moreover, as practices “through which things take on meaning and value” (Shapiro 1988, xi), policies have material (lived) effects, shaping the possibilities for people’s and peoples’ lives (Bacchi 2009, 16–18). Policies achieve these constitutive effects through discursive practices, which comprise the “conditions of emergence, insertion and functioning” of discourses (Foucault 1972b, 163), and hence bridge a material-symbolic distinction (Bacchi and Bonham 2014). A particular conception of power underpins an understanding of policies as constitutive practices. Power is conceptualized as productive rather than as simply repressive. Power is not considered to be something people possess (e.g., “he or she has power”) but as a capacity exercised in the production of subjects and objects (Heller 1996, 83). This productive or generative view of power does not conclude that power and resistance are necessarily equal in their effects, however. Such a conclusion would deny the hierarchies by which the organization of discourse takes effect (see Howarth and Griggs 2012, 310). This understanding of policy as constitutive of subjects and objects sits in sharp contrast to conventional views of the policy process, which, in the main, can be characterized as reactive. That is, in general, policy is considered to be a response to some condition that needs to be ameliorated or “fixed.” Policies are conceived as “reactions” to “problems.” By contrast, the understanding of policy offered in this article portrays policies as constitutive or productive of (what are taken to be) “problems,” “subjects,” and “objects” (Allan 2010, 14). It follows that it is no longer adequate to think in terms of conventional policy “outcomes,” understood as the results or “impacts” of government actions. New questions are required, such as the following: What does the particular policy, or policy proposal, deem to be an appropriate target for intervention? What is left out? How does the shape of the proposal affect how people feel about themselves and the issue? And how does it produce them as particular kinds of subjects?

## Space Weaponization DA

They said $$ at all costs

#### Non-state actors in space are conflict dampeners – they avoid geopolitical tension and have financial incentives to keep conflict low

Frankowski 17 (Pawel, Assistant Professor at the Faculty of National Security. His current research interests include space policy, labour standards in free trade agreements, and theories of international relations, Jagiellonian University in Kakow, “OUTER SPACE AND PRIVATE COMPANIES CONSEQUENCES FOR GLOBAL SECURITY”, <https://doi.org/10.12797/Politeja.14.2017.50.06>)

In the terms of privatization and space security, space remains relatively untapped, but commercial and military benefits from space exploration/exploitation could even lead to ‘privatization of space’. Such privatization will result from growing pressure on spacefaring countries to defect from cooperation, since is less viable with good number of multiple actors who entered the space.36 However, space policy and space research are characterized by very high costs, which are rather impossible to bear by private companies, limited by economic calculation. As pointed out earlier, under-investment in technological development by private companies it is related to the fact that these actors are not focused on profits of a social nature, such as improving the quality of life of the recipient of the product.37 This makes some technology, potentially beneficial to society, not developed or introduced into use, because the profit margin is too small to make this viable for commercial players. To conclude, privatization of space security can develop in unexpected ways, but in today’s space environment private actors would rather play the role of security regulators than security providers. When investment in space technologies is less profitable than other areas of economy, private actors would focus on soft law and conflict prevention in space, and new private initiatives will appear. For example, apart from important space companies, as SpaceX or Blue Origin active in outer space, other private actors as Secure World Foundation (SWF), who focus on space sustainability, will play more important role in crafting international guidelines for space activities.38 This path the way for future solutions and projects, as cleaning the space debris, extracting resources from asteroids and planetoids, refuelling satellites, providing payload capabilities for governmental entities on market-based logic, will be based on activity non-state actors, providing soft law and regulatory solutions, where space faring states are unable to find any compromise. Therefore private companies will be in fact global (or space) regulators, as part of UNCOPUS, being involved in space activities.39 The last argument for private involvement in space security comes from an approach based on common good and resilience of space assets, emphasized by the Project Ploughshares, as an important part of space security. As of 2017 there are more than 700,000 man-made objects on the Earth’s orbit bigger than 1 cm, while 17,000 of them are bigger than 10 cm.40 Some of them are traced by SSA systems, both American and European, but these systems are public-military owned, and private operators are not granted any access to this data. Any collision of space object with space debris, even with small particles, might result in a chain reaction, called Kessler’s syndrome, and not only private but public, and military assets will be destroyed or impaired. In such conditions, a reluctant cooperation between the public and private sector, and unwillingness to share vulnerable data by public actors seem to confirm that private space activity is more than necessary. This is an apparent case when logic of mistrust between state powers must be overcome by private actors, perhaps by suggesting common preferences for debris mitigation, and space situational awareness. In the case of space debris, Space Data Association, an initiative supported by private sector, with its main aim to enhance data sharing between commercial satellite operators, could be an example of nascent public good provided by private actors for the sake of global security.

#### Space weaponization and arms racing ensure space war goes nuclear – only strong private competition can check conflict

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Abstract. The military use of space, including in support of nuclear weapons infrastructure, has greatly increased over the past 30 years. In the current era, **rising geopolitical tensions between** the United States and Russia and China **have led to assumptions** in all three major space powers **that warfighting in space now is inevitable, and possible because of rapid technological advancements**. New capabilities for disrupting and destroying satellites include radio-frequency jamming, the use of lasers, maneuverable space objects and more capable direct-ascent anti-satellite weapons. **This situation, however, threatens international security and stability among nuclear powers. There is a continuing and necessary role for diplomacy, especially the establishment of normative rules of behavior, to reduce risks of misperceptions and crisis escalation, including** up to the **use of nuclear weapons**. U**.S. policy and strategy should seek a balance between traditional military approaches to protecting its space assets and diplomatic tools to create a more secure space environment.** I. INTRODUCTION Outer space is recognized by all nations as “the province of mankind” not subject to national boundaries or appropriation via both treaty – especially the 1967 Outer Space Treaty1 – and by the practice of nation states. Since the dawn of the space age, the use of satellites has become integral to the global economy, including providing communications, weather services, mapping, precision timing and navigation services for shipping, secure crossborder banking, and Internet connectivity. Every state has both an interest in making use of space, and reason to deal with its use by other states, because **the activities in space by one actor have the potential to impact all others**, for good or for bad. In addressing international and national security, and nuclear security in particular, the space environment has played a role of great importance from almost the beginning of the nuclear age. The first satellites launched by the Soviet Union and the United States were oriented toward seeking information on what was transpiring in areas controlled by the other, and to verify bilateral arms control agreements. While in short order space systems also were integrated to the offensive uses of long-range delivery systems by providing photographic information about potential targets, strategic space systems were during the Cold War widely viewed as stabilizing the Superpower nuclear competition. The use of space for military purposes has continued into the present era, with increasing capabilities to take advantage of large segments of the electromagnetic spectrum for acquiring intelligence, communicating globally, and generally supporting ways of using nuclear weapons both for deterrence, and, should deterrence fail, use of those weapons against an adversary. Most of the nuclear weapon possessing states operate satellites for these purposes. Perhaps as importantly, space systems over the last two decades have become integral to the tactical warfighting ability of many modern states – a situation that has complicated the status of space systems as strategically stabilizing. Indeed, the growing use of space by many countries to achieve victory on the battlefield has increased both the vulnerability of militaries to attacks on their space systems and has, at the same time, increased their value as potential targets in a war. Over the past 50 years, the Soviet Union, the United States, and China have carried out experiments in or aimed at the outer space environment – mostly the area close to the atmosphere in Low Earth Orbit (LEO) – that show the capability to destroy a satellite, or to disrupt its functions. The specter of space warfare for many years has, among other negative consequences, raised concerns that a state’s nuclear retaliatory capability could be compromised. This concern also applies more generally, of course, to an ability to disrupt communications functions for other military, or civilian, purposes. In the 1980s, there was a period when the United States, and perhaps others, explored whether systems based in space could be used to destroy an adversary’s intercontinental ballistic missiles, or their payloads. The so-called Star Wars program under the Reagan Administration envisioned the deployment of a system of satellites that would seek to destroy the missiles/warheads launched at the United States. One technology explored envisioned detonating a nuclear explosive to generate a beam of x-rays that would put out of commission the adversary’s warhead. Thus far, such technologies have not succeeded in playing a role in the nuclear-weapon situation globally. However, the U.S. descendant of the Star Wars program – currently limited to conventionally equipped, ground- and sea-based missile defense interceptors with limited capability against a full-blown nuclear attack – continues to stress nuclear deterrence and stability between the United States and Russia, as well as China, which maintains a much smaller nuclear arsenal than the Cold War adversaries. However, recent missile experiments by China have demonstrated the vulnerability of the geosynchronous equatorial orbit (GEO), where many hundreds of satellites are “parked” carrying out communications and other functions, including nuclear weapons support systems and spy satellites. II. INCREASED THREATS INVOLVING OUTER SPACE Since the first satellites were launched in the 1950s by the Soviet Union and then the United States, the Russian Federation, the United States, China, India, Japan, and other states have, without much coordination, launched so many satellites into space into various orbits and at various altitudes that there is currently a strong risk of both congestion and competition. There is no global regime for regulating outer space activities. The Outer Space Treaty of 1967, to which all the launching states, and most others, are party2 mandates that outer space be used solely for peaceful purposes, and prohibits the stationing of nuclear or other weapons of mass destruction in that environment. (The Treaty does not prohibit the transit of nuclear weapons, e.g. as a payload on a submarine-launched ballistic missile, through outer space; furthermore under common law practice, defensive military activities are tolerated as compliant with “peaceful purposes.”) The Outer Space Treaty, however, makes it clear that states are responsible for their own space activities, and compliance with international law. And while there are a number of other spacerelated treaties, UN principles and voluntary agreements managed by various UN and multilateral bodies, a nation’s activities in space are largely regulated by that nation alone. There is no international legal requirement for any one state to coordinate its satellite launches or maneuvers with others. Environmental Threats: Crowding and Debris Some 1,500 operational satellites are now in orbit, owned by more than 80 states or other entities. These states and entities have varying levels both of proficiency and of knowledge of the established laws and rules affecting space. In the radio frequency band of the electromagnetic spectrum, interference is rising, especially in the GEO regime. Some of this interference is deliberate, undertaken for political purposes, despite the fact that deliberate interference is one of the few legally binding restraints in the international space arena3 . The evolution in satellite technology has led to the wider use of smaller satellites, including so-called “Cubesats,” that can be deployed in constellations, especially in LEO. The number of operational satellites is expected to rise to many thousands within the decade. LEO, in particular, is becoming incredibly crowded with satellites, making tracking of on-orbit objects extremely difficult. Furthermore, many small satellites have no ability to maneuver to avoid collisions with other satellites and space debris. The half-century of using space has resulted, from the breakup of satellites and other activities, in a considerable amount of on-orbit debris – including satellites no longer in use, parts of satellites that have broken up, launcher stages, nuts and bolts, and debris from the deliberate destruction of satellites. The United States and others track some 23,000 orbiting pieces with a diameter of greater than 10 cm. This debris is especially dangerous if a satellite or transiting vehicle collides with a piece, since the closing velocity of such a collision on-orbit is very high – some 7.5 kilometers per second (faster than a bullet) in LEO. Worse yet, even very small debris, most of which cannot be detected much less tracked, can destroy an operational satellite; it is estimated that some 500,000 to one million pieces of debris smaller than 10 centimeters exist on orbit. **It is widely agreed that new international measures to better coordinate space activities are required to ensure that the space environment is sustained**. In 2007, the United Nations Committee for the Peaceful Uses of Outer Space (COPUOS) in Vienna, Austria, agreed on a set of guidelines for the mitigation of space debris, which are slowly being implemented by many space-faring states. It may be that such measures will eventually require removal of debris from orbit, as the decay of debris from space into the atmosphere where it burns up (or falls on Earth) is a very long-term prospect, taking as much as 25 years in LEO. Sadly, the lifetime of debris in GEO, like diamonds, is practically forever. COPUOS currently is working on a set of recommended best practices to ensure the “long-term sustainability of space.” COPUOS has a 2018 deadline to finish this work; however, there is already discussion of follow-on effort that may include international guidelines for debris removal. Increasing Military Tensions in Space In the geopolitical sphere, compared with the period following the breakup of the Soviet Union, the current decade is witnessing increased tensions between the United States and Russia, and between the United States and China. The geopolitical situation in space has been further eroded by the proliferation of experimentation with and/or deployment of dual-use technologies with “counterspace,” i.e. satellite attack, capabilities. As noted above, China, Russia and the United States all have tested (or in some cases deployed) such technologies in both LEO and GEO. The United States continues to have an advantage in military space capabilities, but its edge is eroding as China and Russia dedicate more resources. Most technologies involved in sustaining systems in orbit are dual-use, but certain specific activities are raising suspicions about potential intended weapons use. The capability to maneuver satellites is particularly relevant. Russia placed a satellite called Luch/Olymp in GEO that maneuvered or drifted over a considerable range, and at several points in 2015 came extremely close to commercial satellites owned by Intelsat.4 Intelsat called the move “irresponsible,” but their request for information from Russia went unanswered. The maneuvers further prompted concern at the U.S. Defense Department about the satellite’s mission, which has not been revealed by Moscow. The United States also has carried out programs in GEO that could have potential weapons capabilities. For example, the PAN, an acronym for Palladium at Night, is a classified program apparently dealing with communications platforms, and perhaps providing other capabilities.5 The Geosynchronous Space Situational Awareness Program (GSSAP) is a U.S. military satellite constellation that also maneuvers in orbit, designed, according to the Pentagon, with the objective of inspecting other satellites orbiting in GEO. Such activities are known as Rendezvous and Proximity Operations (RPO), and have a number of benign applications such as satellite refueling, inspection and repair. Russia is carrying out other such experiments in LEO, as are China, the United States, Japan and Sweden. The commercial applications of maneuvering satellites are also increasing. Among the number of more directly identifiable counterspace technologies now available, the most widespread are ground-based radio-frequency jammers, which can be used to disrupt satellite communications and operations. In addition, there are efforts to develop lasers for disrupting or degrading systems based in space. Russia, China and the United States have also carried out projects involving terrestrially based missiles carrying anti-satellite payloads. The United States as early as the 1980s launched missiles from an F-15 fighter jet with this objective. A 2007 Chinese test, involving the destruction of a non-functional Chinese weather satellite in LEO, released a considerable quantity of debris. The United States subsequently launched a missile from an Aegis cruiser that was advertised to have the objective of destroying a satellite in a decaying orbit, but this did not prevent speculation that the mission also had the objective of demonstrating a similar capability to that of China. Over decades, the U.S. missile defense program has also heavily relied on the space environment, for early warning, for communications, and as a place for engaging and destroying hostile systems. Noted above is the Reagan Administration’s “Star Wars” program, pursued with the idea of creating a “shield” against intercontinental ballistic missiles. **The harder-line rhetoric that has been employed in recent years also has had an inevitable impact of raising tensions**. The United States has pivoted from an approach of “strategic restraint” to one emphasizing “warfighting.”6 In particular, the budgets for providing resiliency in space systems and counterspace capabilities have been increasing. At the same time, Russian accusations that U.S. activities have a hostile objective, and its responses to U.S. representations, have become shriller. Russia has called the anti-ballistic missile system SM-3 2A an anti-satellite weapon, while touting its own objectives for acquiring anti-satellite capabilities. In 2013, China tested a missile, the Dong Ning-2, which appears capable of reaching satellites in GEO. Chinese military space activities lack transparency, but it seems clear that such activities include the objective of being able to exercise counterspace actions. Most troubling, there has been a lack of serious dialogue among these Big Three states. Multilateral Efforts to Reduce Risks For many years, a direct approach to concerns about the potential for weaponizing space (space has been militarized since the dawn of the space age, but so far cannot be said to have been weaponized) has been debated within the United Nations, as well as at the Conference on Disarmament in Geneva. The Russian-Chinese cosponsored initiative, on the Prevention of an Arms Race in Outer Space, has been on the agenda of the Conference on Disarmament since 1985, and under that agenda item Moscow and Beijing have proposed a treaty to ban weapons in space.7 However, the Conference has been all but immobilized by wider disagreements since that time; and the United States remains firmly opposed to the proposed treaty. There have been a number of efforts to set norms of behavior in space in order to guard against misunderstanding and conflict in space. Most recently, the 2013 UN Group of Governmental Experts (GGE) on Transparency and Confidence-Building Measures in Outer Space Activities released a set of recommended initiatives for states to implement, including improved communications about objects in orbit.8 Unfortunately, little work has been done since to implement the recommendations, either at the multilateral level or by individual states. However, the United States, Russia and China have recommended that the UN Disarmament Commission, based in New York, and the deliberative body on arms control issues, take up the question of implementation of the GGE recommendations. While the initial proposal has been received favorably, a decision regarding whether to put the issue on the Commission’s formal agenda will not be made until Fall. III. POLICY QUESTIONS FOR THE UNITED STATES In view of the increased uncertainties affecting the use of outer space, particularly in the area of international security, the United States needs to address several issues with some urgency. First, what is the appropriate mix of resiliency measures to apply in the coming years? A subsidiary question in this regard is what is an appropriate role for commercial providers? And should the U.S. military switch to constellations of small satellites for some national security missions? The budgetary implications of achieving objectives, and establishing appropriate requirements, are important components of pursuing this mix. And there is the inevitable bureaucratic overlap between the Department of Defense and the Intelligence Community. Such “turf” issues require constant attention lest they adversely impact on the fulfillment of national, vice institutional, objectives. Lengthy acquisition programs put systems at risk of becoming obsolescent earlier than they would otherwise become outdated. As part of this latter issue, the United States will need to consider what reforms are needed in the acquisition process, and related organizational arrangements. The integration of Department of Defense and Intelligence Community programs and activities is inevitably a delicate matter; it will require especial focus from the White House, in particular as resiliency is now being embedded into the requirements for acquisition of new systems. A more far reaching issue is how best to strike a balance between the defensive aspects of counterspace and the offensive aspects. And integral to addressing this balance is the impact of U.S. options to respond to hostile space activities on the stability of the strategic/nuclear relationships: U.S.-Russia, U.S.-China, and a large number of other such relationships involving the nuclear-weapon-possessing states. If “arms racing” resumes, or, in the case of India and Pakistan, continues, how will the use of space, specifically for counterspace activities, impact on these races, and vice-versa? Will there be a deterioration in nuclear deterrence? Will an offensive strategy involving the targeting of an adversary’s nuclear-related satellites emerge? These are questions that beg answers in the near-term, as budgetary and policy decisions are being made. **It is also important to consider the role of diplomacy in dealing with international security for outer space.** Diplomacy, in the form of both self-restraint and in reassurance of potential adversaries regarding intentions, has been a part of the tool kit for managing competition in space from the beginning of the space age. Can effective “rules of the road” be further developed? The limited success, but slow pace, of multilateral efforts should not be seen as failure, however. Diplomacy is a difficult business, often characterized by a “one step forward, one step back” dynamic. There is some optimism to be found in the ongoing COPUOS effort, which while a slightly sideways approach, will have positive impacts on international security if successful. While the Disarmament Commission has little power, the advent of discussions there would provide a much needed multilateral forum for addressing the security issues for space given the decades-long impasse at the Conference on Disarmament. Finally, **one should not overlook the value of bilateral diplomacy, particularly among the Big Three space powers. Further work will also be needed to regulate the proliferation of technologies in the commercial sector**. This will likely involve export control, and measures for the management of “traffic” in space (STM). However, care must be given to weigh national security concerns against the needs of commercial industry to thrive in the international marketplace. There is a tendency in the national security community to try to “close the barn door after the horses have escaped” that must not be indulged in the space domain, given the reliance of the national security sector on commercial capabilities and technological innovation. IV. THE NEED FOR A “TIME OUT” To date, no state is deploying dedicated anti-satellite weapons. Testing of capabilities does not a program make. That said, the trend lines are currently negative and require both time and analysis to mitigate. It would be irresponsible for the United States, or any other country, to leap to conclusions about the “inevitability” of all-out war in space. A balanced strategy, which combines resiliency, deterrence, and diplomacy **will be required to** protect national security and **ensure international security**. While development of some anti-satellite capabilities for potential future use may be wise, a run-away space arms race is not desirable for any party. It may be that a viable modus vivendi could be a situation of “implied deterrence:” i.e., the development of dual-use technologies with inherent weapons capabilities in a transparent manner so as to provide the knowledge to others that, if pushed, antisatellite weapons could be deployed. And despite the difficulties to date, **the prospect of the multilateral establishment of norms shows some possibility of promise.** This involves the implementation of recommendations by the Group of Governmental Experts discussed above; of the COPUOS LTS (long-term sustainability) best practices work making progress by 2018; the successful efforts to codify the legal regime that are underway (e.g., those at McGill University in Montreal), and perhaps the UN Disarmament Commission addressing TCBMs in 2018. These efforts must be given a chance to ripen, however much frustration is involved in the processes. It can perhaps be helpful to think of the world as being surrounded on all sides by a large fishbowl, of indefinite dimensions in the outward direction, with the atmosphere at the intersection between “outer” space and the land and waters below. Looked at in this way, human activities in outer space have little room to be confined to a single state: the world as a whole is impacted by those activities. Accordingly, when dealing with outer space, traditional concepts of absolute roles for state sovereignty must inevitably be modified to serve the objectives of global peace, security and stability. Whether this reality will at some point lead to an appreciation that reliance on force, nuclear weapons in particular, cannot play the role in space that it does on the Earth, remains to be seen.

## Case

#### Private space appropriation will solve extinction – presume neg

Ginsberg 17

Leah Ginsberg (senior editor covering entrepreneurs, this article is just a summary of a musk interview), June 16 2017, “Elon Musk thinks life on earth will go extinct, and is putting most of his fortune toward colonizing Mars,” CNBC, https://www.cnbc.com/2017/06/16/elon-musk-colonize-mars-before-extinction-event-on-earth.html, // HW AW

If we stay on earth forever, “there will be some eventual extinction event,” says Elon Musk in an article published in academic [journal New Space](http://online.liebertpub.com/doi/full/10.1089/space.2017.29009.emu). In it, Musk says the alternative to this doomsday is for humans to become a multi-planetary species. He says Mars is the place to do it. Venus is a “hot acid bath,” says Musk in the article, which summarizes a speech he gave in Sept. of 2016. Mercury is too close to the sun. The moon is too small, has no atmosphere and not as “resource-rich.” Speaking like the entrepreneur he is, Musk says, Mars is better-suited “to scale up” to be a self-sustaining civilization. ″[I]f we could warm Mars up,” says Musk, which he believes is doable, “we would once again have a thick atmosphere and liquid oceans.” Mars also has enough sunlight and an atmosphere in which, with some tweaking, it would be possible to grow plants. 1:29 SpaceX’s Elon Musk’s bold ambition to colonize Mars Musk also says, “It would be quite fun to be on Mars because you would have gravity that is about 37 percent of that of Earth, so you would be able to lift heavy things and bound around.” The key, says Musk is his company SpaceX creating systems that make the move to Mars affordable – comparable to the median house price in the U.S. is the goal. Currently, Musk estimates trips to Mars would cost about $140,000 per ton (taking into account transporting things like luggage, food and life support). But he believes the cost could potentially drop to below $100,000 a ton. Musk sees a future where people would save up for a move to Mars like they do a home. “People could also get sponsorship. It gets to the point where almost anyone, if they saved up and this was their goal, could buy a ticket and move to Mars — and given that Mars would have a labor shortage for a long time, jobs would not be in short supply,” he says. Ultimately, says Musk, funding this will be a joint effort between private and government resources. “As we show that this is possible and that this dream is real—it is not just a dream, it is something that can be made real—the support will snowball over time,” says Musk. “I should also add that the main reason I am personally accumulating assets is in order to fund this,” says Musk of his wealth. “I really do not have any other motivation for personally accumulating assets except to be able to make the biggest contribution I can to making life multi-planetary.” Just 15 years ago, “SpaceX basically consisted of carpet and a mariachi band,” says Musk. “We were basically clueless.” Now, he believes SpaceX will have a spaceship by about 2020, with which it can start doing suborbital flights. That would also enable the transport of cargo “to anywhere on Earth in 45 minutes at the most,” he says. “Most places on Earth would be 20–25 minutes away. If we had a floating platform off the coast of New York, 20–30 miles out, you could go from New York to Tokyo in 25 minutes and across the Atlantic in 10 minutes,” he says. “If things go super-well, it might be in the 10-year time frame,” to Mars, says Musk. “But I do not want to say that is when it will occur. There is a huge amount of risk. It is going to cost a lot. There is a good chance we will not succeed, but we are going to do our best and try to make as much progress as possible.”

#### We’re still lightyears away from lunar mining — even Elon acknowledges the immense difficulties that we’re nowhere near solving

Mining Technology 17

Mining Technology (mining news and in-depth feature articles on the latest mining company deals and projects covering trends in mineral exploration); “Mining the Moon”; *Mining Technology*; December 4, 2017; <https://www.mining-technology.com/features/mining-the-moon/>; HW-EMJ

The concept of mining on the Moon has been around for decades, and while political and scientific endeavour has ebbed and flowed, it has never gone away. Almost all current space exploration programmes – American plans to go back to the Moon and Elon Musk’s SpaceX programme included – factor in mining resources in some way or another. “The basic idea is to extract materials from the Moon that create new capabilities in space,” says lunar scientist Paul Spudis. “To this end, people have envisioned a wide variety of mining and resource utilisation activities on the Moon. Broadly, most plans involve the collection of granular material, running it through some type of processing, e.g. thermal, chemical – the extraction of useful stuff and the discarding of the waste.” Scientific advances are bringing commercial space travel ever closer. At the same time, terrestrial resources are beginning to wane and dreams of making use of the 7.3 x 1022kg of material circling the Earth that make up the Moon have gained greater traction. So, realistically, how close are we to mining the Moon? Water, metals and REMs The Moon’s resources could be put to a number of uses, such as a source of fuel for farther flung journeys through space, or providing an alternate source of rare metals and minerals for use on Earth. “There is a hierarchy of material resources, arranged according to their ease of acquisition and their utility,” says Spudis. “The easiest stuff is bulk regolith (lunar soil), which can be used to backfill installations on the moon and to make shielding to protect habitats thermally and from radiation.” Regolith would not be transported to Earth, but for missions such as SpaceX’s, which include building a lunar base, it could be very beneficial. When, in 2008, samples from the 1970s Apollo 15 and 17 missions were re-examined, the presence of water brought greater hope of establishing lunar habitations. Since then, multiple studies have confirmed that the Moon has water in abundance. “Water ice (and other volatile substances) is found in the dark areas near the poles and have many uses, including life support and rocket propellant,” says Spudis. For any future mining activities water will be necessary, both for operations and for sustaining a crew. “Water is the oil of the solar system and those companies who are able to harvest and harness extraterrestrial deposits of water will make Exxon look like a lemonade stand,” says founder and CEO of Moon Express, Robert Richards. Along with water, the Moon has a number of other materials which would be useful for space exploration. “Metals can be extracted from the oxides in the soil by chemical reduction – iron, titanium and aluminium are the principal useful metals to be manufactured on the Moon,” says Spudis. But like regolith, it wouldn’t be profitable to bring these metals back to Earth where they can be mined far more easily. Currently, China produces more than 90% of the rare earth metals (REM) we need for electronics. But reserves are running out fast with some elements, including dysprosium, neodymium and lanthanum, expected to be depleted within the next 20 years. In order to feed the world’s seemingly insatiable appetite for technology, new sources of REMs must be found, as recycling alone will be unable to meet demand. “Rare and unusual elements and isotopes (rare earths, thorium, helium-3) may be accessed and mined,” says Spudis. “Some of these uncommon materials may be of such high value as to merit their importation back to Earth for sale in terrestrial markets. But these are in very low concentrations and will likely be the targets for mining in the future, after a long-term presence on the Moon has been established.” It is these which provide the greatest hope for profitable mining companies and shipping to Earth. There and back again Many hurdles remain before mining the Moon can happen, not least getting there. In all of human history only 12 people have ever walked on the Moon. This is, in part, due to the colossal expense of such a venture, so the cost must come down before industry can proceed. Conventional thinking is to create reusable rockets, something SpaceX is currently working on with its Dragon craft. “If one can figure out how to effectively reuse rockets just like airplanes, the cost of access to space will be reduced by as much as a factor of a hundred,” says SpaceX founder and CEO Elon Musk. “A fully reusable vehicle has never been done before. That really is the fundamental breakthrough needed to revolutionise access to space.” Once commercially affordable lunar transport has been developed and the Moon reached, then the challenges intensify. Crews working in the hostile environment of the Moon will have to endure living in “a vacuum with extremes of heat and cold, hard radiation and the ubiquitous presence of abrasive, angular dust grains”, explains Spudis. The temperature on the Moon varies from 123°C to -233°C because there is no atmosphere, making human habitation and activities very difficult. Furthermore, there is only about a sixth of the gravity on the Moon that we experience on Earth, complicating mining operations substantially. Bases will need to be established, probably with the use of 3D printing, which would enable the construction of infrastructure on the Moon. Mining lunar material will also require self-sufficient and reliable robotics to minimise human exposure to the Moon’s environment. “Mining machines could be automated for simple tasks and teleoperated for complex tasks requiring human supervision, but complex machines will require self-maintenance, high reliability and long lifetimes,” says Spudis. “The exposure of humans to the harsh environment must be minimised.” Furthermore, raw materials harvested will need to be processed on the Moon. Transferring lunar soil to Earth for processing is simply impractical, and much of the materials would be required for activities taking plac

e on the Moon itself, such as those necessary for building and maintaining the moon base. For elements worth transporting back, there is a third phase of complications: returning to Earth. This particular challenge could be resolved by way of reusable space crafts, which would have to be capable of not only withstanding the immense heat and pressure of re-entering Earth’s atmosphere with enough control to land safely in a specific location, but to do all of this whilst carrying an extremely heavy cargo of REM.

### Analytics

1. No natural disasters impact- we’ve been dealing with them for years. Volcanoes literally erupt every year and we’ve found tech to build around
2. No solvency for nuke wars- card from 12 and we haven’t been able to develop tech to solvenuke wars
3. No solvency/circumvention- There are SO many heritage sites- China gets the dark side where they first landed, we get the Sea of Tranquility which is acres wide-
4. No commercialization of the moon- in the squo private companies are more interested in travel and commercial exploration- no development/colonization so far

Wild

Moon hertiage sites are huge

The link chain is super duper long

Moon basing easier w/ private

Observatory not k2 anything, seeing vocanoes does nothing we alr have satellites

Ageing crisis???? Private innovation key

Volcanic explosions are low prob