#### Relies on outdated forms of strategic essentialism which truncates action

Stone ’04 (Alison, Institute for Environment, Philosophy and Public Policy Lancaster University, “Essentialism and Anti-Essentialism in Feminist Philosophy,” Journal of Moral Philosophy 1.2, 2004)

An objection immediately arises to this strategic essentialist position. Any political strategy is effective only inasmuch as it allows agents to recognize and intervene into the real social events, processes and forces which make up the social field. But it seems reasonable to think that a strategy can be effective, in this sense, only insofar as it embodies an **accurate understanding of the character of social processes.** This implies that a strategy of **affirming fictitious commonalities among women** will fail to facilitate effective action **given a world where women do not really have any common social characteristics or locations**. Rather, such a strategy appears destined to mislead women into fighting against difficulties which are either non-existent or— more likely—really affect only some privileged subgroup of women. This objection can be resisted, however, as it (implicitly) is by Denise Riley in ‘Am I That Name? ’. Riley claims that **‘it is compatible to suggest that “women” don’t exist—while maintaining a politics of “as if they existed”**— since the world behaves as if they unambiguously did’. 15 In other words, for Riley, the fiction that women share a common social experience is politically effective because the social world actually does treat women as if they comprise a unitary group. Riley accepts that women are not a unitary group and that the socially prevalent idea that they are unified is false. Nevertheless, this false idea informs and organizes the practices and institutions that shape women’s experiences, so that those—very different—experiences become structured by essentialist assumptions. A strategy of affirming fictitious commonalities therefore will be effective given this world in which (false) descriptive essentialist assumptions undergird women’s social existence. Riley’s argument has a problem, though: she **cannot consistently maintain** both that women’s social experience is fully diverse and that this experience is uniformly structured by essentialist assumptions. If essentialism informs and organizes the structures that shape women’s social experience, then this experience will be organized according to certain shared models and will acquire certain common patterns and features. More concretely, the idea that women are a homogeneous group will structure social institutions so that they position all women homogeneously, leading to (at least considerable areas of) shared experience. Thus, Riley (and other strategic essentialists)may be right that essentialist constructions are socially influential, but they cannot, consistently with this, also maintain that descriptive essentialism is false. Furthermore, it is not obviously true that any uniform set of essentialist constructions informs all social experience. These constructions may all identify women as a homogeneous group, but they vary widely in their account of the context of women’s homogenous features. Consequently, these constructions will influence social structures in correspondingly varying directions, against which no counter-affirmation of common experience can be expected to be effective Strategic essentialists, then, have attempted to resuscitate essentialism by arguing that it can take a merely political and non-descriptive form. But this **attempt proves unsuccessful**, because one cannot defend essentialism on strategic grounds without first showing that there is a homogeneous set of essentialist assumptions that exerts a coherent influence on women’s social experience—which amounts to defending essentialism on descriptive grounds(as well). Advocates of essentialism therefore need to show that it accurately describes social reality. Here, though, critics can retort that essentialism is descriptively false, since women do not even share any common mode of construction by essentialist discourses. Yet this retort reinstates the problem of anti-essentialism: its paralysing effect on social criticism and political activism. Strategic essentialism has not resolved this problem, for it has not stably demarcated any merely political form of essentialism from the descriptive essentialism which critics have plausibly condemned as false and oppressive.

# 1AC

## 1AC — Plan

#### Plan: The appropriation of outer space through celestial body mining by private entities should be banned.

#### We’ll defend normal means as the signatories of the OST adding an optional protocol under Article II.

Tronchetti 7[Fabio Tronchetti is a professor at the International Institute of Air and Space Law, Leiden University, The Netherlands, 2007, <https://iislweb.org/docs/Diederiks2007.pdf>, 12-15-2021 amrita]

ARTICLE II OF THE OUTER SPACE TREATY: A MATTER OF DEBATE The legal content of Article II of the Outer Space Treaty is one of the most debated and analysed topic in the field of space law. Indeed, several interpretations have been put forward to explain the meaning of its provisions. Article II states that: “Outer space, including the Moon and other celestial bodies, is not subject to national appropriation by claim of sovereignty, by means of use or occupation, or by any other means”. **The text of Article II represents** the final point of a process, formally initiated with Resolution 1721, aimed at conferring to outer space the status of res communis omnium, namely a thing open for the **free exploration** and use by all States **without the possibility of being appropriated**. By prohibiting the possibility of making territorial claims over outer space or any part thereof based on use or occupation, Article II **makes clear that** the customary procedures of **i**nternational **law allowing** subjects to obtain **sovereignty rights over un-owed lands**, namely discovery, occupatio and effective possession, **do not apply to** outer **space.** This prohibition was considered by the drafters of the Outer Space Treaty the best guarantee for preserving outer space for peaceful activities only and for stimulating the exploration and use of the space environment in the name of all mankind. What has been the object of controversy among legal scholars is the question of whether both States and private individuals are subjected to the provisions of Article II. Indeed, **while Article II forbids** expressis verbis the national **appropriation by** claims of **sovereignty**, by means of use and occupation or other means of outer space, **it does not** make **a**ny explicit **mention** **to** its **private** appropriation. Relying on this consideration, some authors have argued that the private appropriation of outer space and celestial bodies is allowed. For instance, in 1968 Gorove wrote: “Thus, at present an individual acting on his own behalf or on behalf of another individual or private association or an international organisation could lawfully appropriate any parts of outer space…”6 . The same argument is used today by the enterprises selling extraterrestrial acres. They base their claim to the Moon and other celestial bodies on the consideration that Article II does not explicitly forbid private individuals and enterprises to claim, exploit or appropriate the celestial bodies for profit7 . However, it must be said, that nowadays there is a general consensus on the fact that **both national appropriation and private** property rights **are denied** under the Outer Space Treaty. Several way of reasoning have been advanced to support this view. Sters and Tennen affirm that the argument that Article II does not apply to private entities since they are not expressly mentioned fails for the reason that they do not need to be explicitly listed in Article II to be fully subject to the non-appropriation principle8 . **Private entities are allowed to carry out** space **activities but**, according to Article VI of the Outer Space Treaty, they **must be authorized** to conduct such activities **by the** appropriate **State** of nationality. But if the State is prohibited from engaging in certain conduct, then it lacks the authority to license its nationals or other entities subject to its jurisdiction to engage in that prohibited activity. Jenks argues that “States bear international responsibility for national activities in space; it follows that what is forbidden to a State is not permitted to a chartered company created by a State or to one of its nationals acting as a private adventurer”9 . It has been also suggested that **the prohibition of national** appropriation **implies prohibition of private** appropriation because the latter cannot exist independently from the former10. In order to exist, indeed, private property requires a superior authority to enforce it, be in the form of a State or some other recognised entity. In outer space, however, this practice of State endorsement is forbidden. Should a State recognise or protect the territorial acquisitions of any of its subjects, this would constitute a form of national appropriation in violation of Article II. Moreover, it is possible to use some historical elements to support the argument that both the acquisition of State sovereignty and the creation of private property rights are forbidden by the words of Article II. During the negotiations of the Outer Space Treaty, the Delegate of Belgium affirmed that his delegation “had taken note of the interpretation of the non-appropriation advanced by several delegations-apparently without contradiction-as covering both the establishment of sovereignty and the creation of titles to property in private law”11. The French Delegate stated that: “…there was reason to be satisfied that three basic principles were affirmed, namely: the prohibition of any claim of sovereignty or property rights in space…”12. The fact that the accessions to the Outer Space Treaty were not accompanied by reservations or interpretations of the meaning of Article II, it is an evidence of the fact that this issue was considered to be settled during the negotiation phase. Thus, summing up, we may say that **prohibition of appropriation of outer space** and its parts is a rule which **is valid for both private and public entity**. The theory that private operators are not subject to this rule represents a myth that is not supported by any valid legal argument. Moreover, it can be also added that if any subject was allowed to appropriate parts of outer space, the basic aim of the drafters of the Treaty, namely to prevent a colonial competition in outer space and to create the conditions and premises for an exploration and use of outer space carried out for the benefit of all States, would be betrayed. Therefore, **the need to protect the non-appropriative nature o**f outer **space emerges** in all its relevance.

#### Multiple ambiguities mean that current interpretation of the OST doesn’t restrict private entities AND that other countries are just redefining it

Anderson et. al, 18, “The development of natural resources in outer space”, Jounal of Energy and Nature Resources Law, Scot W Anderson, is a partner in the Denver office of Hogan Lovells US LLP. Korey Christensen, is a senior associate in the Denver office of Hogan Lovells US LLP. Julia LaManna, is an associate in the Denver office of Hogan Lovells US LLP. DOI: 10.1080/02646811.2018.1507343, KR

While the Treaty makes it clear that there is a right of free access to celestial bodies for all nations, it prohibits ownership of the bodies themselves. It also qualifies that space activities by private entities must be authorised and supervised by the appropriate nation. However, the Treaty does not deal clearly with whether space resource extrac- tion is a lawful enterprise under its terms. Discussed below are several ambiguities of import in assessing the legality of space mining.

First, what is meant by ‘celestial bodies’? Because there is no single governing defi- nition of celestial bodies, it is unclear whether the category includes asteroids.92 If aster- oids are not celestial bodies, then the Outer Space Treaty’s prohibition on national appropriation of the moon and other celestial bodies would not apply to them. However, most legal scholars agree that asteroids should be encompassed within the treaty terms.93 The International Astronomical Union likewise includes asteroids in its definition of celestial bodies.94 Thus, it is safe to assume that the Treaty applies to asteroids and the remaining discussion in this overview proceeds accordingly.

Second, what is the effect of the Treaty’s statement that the exploration and use of space ‘shall be carried out for the benefit and in the interests of all countries’? While some have argued that this clause mandates an international profit-sharing mechanism, the US and others have taken the position that it merely reiterates the right of free access articulated in Article I.95

Third, does the prohibition on national appropriation extend to a grant of private rights over extracted resources? Meaning, can private entities own resources extracted from the celestial body without any nation owning the body itself? The Treaty includes the phrase ‘exploration and use’ twice in its terms. The word ‘use’ seems to indicate that leveraging space resources was within the contemplation of the drafters, and thus, not prohibited.96 Still, it is unclear how rights would be distributed where national appro- priation is prohibited. The diplomatic history of the Treaty indicates that perhaps this point was left ambiguous deliberately in order to gain support across nations.97

The closest analogue to a legal framework of this type is the extraction and utilisation of resources, such as fish, from the high seas. While the high seas are outside the jurisdic- tion of any single nation, domestic laws protect property rights over resources extracted from them.98 As discussed in greater depth below, US domestic law asserts that the same framework applies to the moon and asteroids. Proponents of this line of thinking argue that granting private property rights to asteroid resources does not conflict with the inter- national prohibition on national appropriation of asteroid bodies.99

#### Disputes and misperceptions create cascading effects towards space weaponization and an arms race – other international frameworks can’t solve because thoose who got the power make the calls

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The first concern is establishing clear regulations regarding asteroid mining. With an intent to establish clear regulations with respect to asteroid mining and to legalise material extraction from the moon and other celestial bodies by private companies in the US, the US government legalised space mining in 2015 by introducing the US Commercial Space Launch Competitiveness Act, 2015.[xxvii] This move was heartily welcomed by the private companies as it provided legitimacy to their planned activities. Subsequently in 2017, Luxembourg followed suit.[xxviii] While the US has been a spacefaring nation for many decades now, Luxembourg aspires to become a global leader in the nascent race to mine resources in outer space. In the 1980s the tiny European nation arose out of almost nowhere to become a leader in the satellite communications industry; today it is looking to the skies again, hoping to be the Silicon Valley of asteroid mining.[xxix] In the backdrop of a thriving steel industry that faced trade recession during the oil crisis of 1973, Luxembourg is trying to capitalise on the potential of space mining. As Prime Minister Xavier Bettel put it, “We realized it wouldn't be forever, the steel, so we decided to do other things.”[xxx] Similarly, looking beyond oil, the UAE is framing its policy approaches to make advances in two key areas: human space exploration, and commercial activities of resource extraction through mining.[xxxi] The two formal pieces of legislation (passed by the US and Luxembourg) provide an answer to the complex question of ownership in outer space; the two-word answer appears to be, “finders, keepers”. The US Commercial Space Launch Competitiveness Act, 2015 states: “A US citizen engaged in commercial recovery of an asteroid resource or a space resource shall be entitled to any asteroid resource or space resource obtained.”[xxxii] This legislation gives US space firms the right to own, keep, use, and sell the spoils of the cosmos as they deem fit. Luxembourg’s legislation is fairly analogous to the US Act, giving mining companies the right to keep their plunder. However, unlike the US law, Luxembourg’s does not require a company’s major stakeholders to be based in the country to enjoy its safeguards; the only requirement is for that company to have an office in the country.[xxxiii] In 2017, Japan entered into a five-year agreement with Luxembourg for mining operations in celestial bodies. Japan today appears a step closer to realising its objective of asteroid mining with two Japanese rovers, Minerva II-1, of JAXA landing on the surface of the asteroid named Ryugu in September 2018.[xxxiv] Earlier, Portugal and the UAE signed similar cooperation agreements with Luxembourg.[xxxv] Meanwhile, a few other countries—which have been critical of the US and Luxembourg, at the forefront of the space mining efforts**—**have also decided to join the field. The increasingly competitive and contested nature of outer space activities is spurring major spacefaring nations to push the boundaries in their space exploration. Asteroid mining could possibly become the next big thing and is already seeing a race among the space powers. The US and Luxembourg are at the forefront in space resource extraction in terms of the policy frameworks and funding.[xxxvi] Even as the US has clarified that the US Space Act 2015 is being misunderstood and that there is no change in the US policy towards national appropriation of space, the reality is that it has already spurred a major debate**.[xxxvii]** China and Russia are among those countries that are following on the path of the US and Luxembourg in undertaking mining missions in space. According to media reports, Ye Peijian, chief commander and designer of China’s lunar exploration programme has stated that China would send the first batch of asteroid exploration spacecraft around 2020.[xxxviii] Speaking to China’s Ministry of Science and Technology-run newspaper, Science and Technology Daily, Ye said that these asteroids have a high concentration of precious metals, which could rationalise the huge cost and risks involved in these activities as their economic value could run into the trillions of US dollars. Therefore, extraction, mining and transporting them back to Earth through robotic equipment will be a significant activity. Chinese scientists are working on missions to “bring back a whole asteroid weighing several hundred tonnes, which could turn asteroids with a potential threat to Earth into usable resources**.**”[xxxix] Ye was also quoted as saying that China has plans of “using an asteroid as the base for a permanent space station.”**[xl]** Helium mining on the moon is also part of China’s goals.[xli] Russia, for its part, is also responding to the space-mining developments of the last decade. For one, it plans to have a permanent lunar base somewhere between 2015 and 2020 for possible extraction of Helium.[xlii] Even as Russia’s official position on asteroid mining is that it is forbidden under the 1967 OST—which states that space is the “province of mankind”—the Russian industry players are of the view that they must follow the lead taken by the US and Luxembourg.[xliii] In early 2018, the director of the Scientific-Educational Center for Innovative Mining Technologies of the Moscow-based National University of Science and Technology MISIS (NUST MISIS), Pavel Ananyev, spoke about the Russian ambitions and proposed activities including space drilling rigs, water extraction on the Moon and 3D printers at space stations.[xliv] Russia’s private space companies including Dauria Aerospace, one of the first Russian private space companies, also hold the opinion that they must go forward in the same direction and call for a larger space to private sector to engage in extracting space resources.[xlv] Moscow may not have yet actively pursued space mining and resource extraction, but it is likely to pick up pace in the coming years alongside global efforts. Moscow clearly has a capacity gap in terms of funding because its earlier plans to have a permanent base in the Moon by 2015 is yet to happen. India, too, has ambitions in extraterrestrial resource extraction. In fact, a year after the US legislation, Prabhat Ranjan, executive director of Technology Information, Forecasting and Assessment Council (TIFAC), a policy organisation within the Department of Science and Technology, made a case for India to push ahead with lunar and asteroid mining. He said, “Moon is already being seen as a mineral wealth and further one can go up to the asteroids and start exploiting this. This can be a big game changer and if India doesn’t do this, we will lag behind.”[xlvi] More recently, Dr. K Sivan, Chairman of the country’s civil space organisation, Indian Space Research Organisation (ISRO), talked about ISRO’s plans for helium-3 extraction and said, “the countries which have the capacity to bring that source from the moon to Earth will dictate the process. I don’t want to be just a part of them, I want to lead them.”[xlvii] However, gaining proficiency in such missions is not easy – the NASA and ESA (the European Space Agency) have been discussing these possibilities for a longer time, albeit quietly. The ISRO Chairman’s response was characterised by an Indian commentator as “aspirational” and “emotional”, clearly conceding that the country’s technological wherewithal is yet to be adequate.[xlviii] Importantly, it is not clear how the legal and regulatory aspects of space mining operations are being dealt with. There was one instance, though, when Luxembourg and Japan in a joint press statement said, “The exchange of information may cover all the issues of the exploration and commercial utilization of space resources, including legal, regulatory, technological, economic, and other aspects.”[xlix] Whether such legalisation is truly legal is arguable. Space Mining: Legal or Not? The Outer Space Treaty (OST) of 1967, considered the global foundation of the outer space legal regime, along with the other four associated international instruments have provided the fundamental basis for outer space activities by prohibiting certain activities and emphasising aspects such as the “common heritage of mankind”. These agreements have been useful in highlighting the global common nature of outer space. At the same time, however, they have been insufficient and ambiguous in providing clear regulations to newer space activities such as asteroid mining. Based on the premise of ‘res communis’, the magna carta of space law, the OST, illustrates outer space as “the province of all mankind”.[l] Under Article I, States are free to explore and use outer space and to access all celestial bodies “on the basis of equality and in accordance with international law.”[li] Although the OST does not explicitly mention “mining” activities, under Article II, outer space including the Moon and other celestial bodies are “not subject to national appropriation by claim of sovereignty” through use, occupation or any other means.[lii] Furthermore, the Moon Agreement, 1979, not only defines outer space as “common heritage of mankind” but also proscribes commercial exploitation of planets and asteroids by States unless an international regime is established to govern such activities for “rational management,” “equitable sharing” and “expansion of opportunities” in the use of these resources.[liii] Slipping conveniently through the loophole in the OST, both the US and Luxembourg have authorised companies to claim exclusive ownership over extracted resources (but not of the asteroid itself). Proponents argue that since no sovereign nation is actually asserting rights over an area of outer space, instead, it is only a private unit claiming rights over singular resources, the treaty norm, “national appropriation by claim of sovereignty”, is not being violated. In the words of renowned space lawyer, Frans von der Dunk, “In terms of the law, yes it’s true that no country can claim any part of outer space as national territory — but that doesn’t mean private industry can’t mine resources.”[liv] Quoting reference from maritime law, Luxembourg regards space resources as appropriable akin to fish and shellfish, but celestial bodies and asteroids are not, just like the high sea. It is noteworthy that out of the only 18 nations that have ratified the Moon Agreement,[lv] none are major spacefaring nations, thereby giving themselves a convenient leeway to not abide by the same. These unilateral initiatives have set off a critical response from the international community. Applying literal interpretation of the OST, there is certainly room to construe that space mining may be legal, compared to the Moon Agreement whose prohibition is absolute. However, taking into consideration the letter and spirit of the OST, strengthened by the Moon Agreement, the argument that “national appropriation” only extends to appropriation of territory and not appropriation of resources is a far reach. That resource extraction is contemplated, albeit implicitly, in the OST, is nothing but logical. Not only have such claims of possessory rights not been recognised in the past, there is also global consensus regarding its illegality.[lvi] It therefore forms a part of customary international law, despite the Moon Agreement not having been widely ratified. In this light, the legalisation of space mining is a sheer violation of the elemental principles of international space law. Yet, there is no clarity on what activity is allowed and what is prohibited in outer space under the existing law.[lvii] There is ambiguity around most issues—from “who would license and regulate asteroid mining operations” to the legality of these activities as per the existing international space law.[lviii] When comparing it to the law of the seas, resource appropriation in the high seas and deep seabed is governed by the United Nations Convention on the Law of the Sea (UNCLOS), 1982, and that in Antarctica, as per the Protocol on Environmental Protection to the Antarctic Treaty, 1991. While the former is strictly regulated under Part XI of UNCLOS, the latter is completely forbidden but for scientific purposes. The law of the sea argument—“owning the fish, not the sea”—cannot be applied to outer space primarily because fish are living resources that can reproduce and therefore are renewable. Outer space resources, on the other hand, are depletable: once harvested, they cannot be replenished. The analogy with fish and seas, therefore, is not a fair one and its transposition to outer space and celestial bodies would be inaccurate. Perhaps a more comparable regime is the deep seabed, which contemplates property rights over mineral extraction. The utilisation and ownership of the deep seabed’s resources are exclusively structured around the International Seabed Authority (ISA), which is responsible for organising, carrying out and controlling all activities in the seabed.[lix] Not only must State parties seek sanction from the ISA before beginning resource exploitation, but the fiscal benefits from seabed mining must also be shared among all.[lx] Evidently, even the UNCLOS upholds State ownership and fair distribution over individual ownership and self-centred gains.[lxi] By allowing private ownership, the US and Luxembourg are once again in contravention of the very same law they are relying on. The touchstone principle, “province of all mankind” is also being defeated. Therefore, to even reap the limited benefits as under UNCLOS, at least the derivation must be made alike. This argument too falls flat. The Way Ahead Undoubtedly, growing technological adeptness has made space mining inevitable and, therefore, the question is no longer “if” but “when”. Nevertheless, a scenario where companies can, solely based on domestic laws, steadily exploit mineral resources in outer space, would be universally unacceptable. Minus regulations, the realisation of space exploitation will create great disparity between nations and disrupt dynamics of the world economy. Regulations are particularly important in the context of the space debris problem. We definitely do not wish for a future, befittingly described by renowned engineer and inventor Graham Hawkes, thus: “Space exploration promised us alien life, lucrative planetary mining, and fabulous lunar colonies. News flash, ladies and gents: Space is nearly empty. It’s a sterile vacuum, filled mostly with the junk we put up there.”[lxii] Therefore, it is extremely important that resource appropriation is carried out in an ethical manner, without interrupting safe and secure access to outer space, simultaneously allowing all countries a share in the proceeds. Technological advances and financial readiness are pushing both, states and non-state players towards new ventures in outer space. Yet, the rules of engagement especially dealing with the new commercial activities are far from ideal. There is a clear and urgent need to debate and come up with either a new regulation or accommodate the space mining activities within the existing international legal measures. Experts have articulated that these could possibly be addressed under the existing property law principles or old mining law principles.[lxiii] However, given the scale of activities that states and non-state parties will engage in, the ability of the existing regime to address space mining could be highly inadequate. The second option would be to develop a new instrument including an institutional architecture that would set out the parameters for activities related to resource extraction and space mining. Since there are a good number of commercial players playing a formidable role in asteroid mining, there has to be space for commercial players in the new gig, which might be a big departure from the earlier era institutions that saw states being the sole authority in regulating activities in outer space. A clear role for commercial players has been articulated for some time but the global space community has yet to reach a consensus in how they can be incorporated into the global governance debates. The apprehension on the part of a number of states is driven by the fact that private sector participation is still largely a western phenomenon. This trend may be undergoing change in other parts of the world but until there is a sizeable private sector community in other major spacefaring powers, there is a fear that the western bloc of countries may stand to gain from the industry being represented in the global governance debates. A third possible option is to get a larger global endorsement of the Moon Treaty, which highlights the common heritage of mankind. The Moon Treaty is important as it addresses a “loophole” of the OST “by banning any ownership of any extraterrestrial property by any organization or private person, unless that organization is international and governmental.”[lxiv] But the fact that it has been endorsed only by a handful of countries makes it a “failure” from the international law perspective.[lxv] Nevertheless, efforts must be made to strengthen the support base for the Moon Agreement given the potential pitfalls of resource extraction and space mining activities in outer space. Signatories to the Moon Treaty can take the lead within multilateral platforms such as the UN to debate the usefulness of the treaty in the changed context of technological advancements and new geopolitical dynamics, and potentially find compromises where there are disagreements. Pursuing a collective approach is ideal. An example is UNCLOS, which demonstrates that the international society possesses the capability of regulating mining quarters deemed to be the “province of mankind”. However, a sui generis legal framework must be crafted because the difference between the marines and outer space and their resources is wide, and the regulations are too region-specific to permit a superimposition of the oceanic regime to outer space. A sound legal environment will protect both the company performing operations and its beneficiaries, while ensuring even-handed resource allocation. In addition, regulations spelling out safety standards and identifying safety zones around mining operations could be useful in

## 1AC—Advantages

### Advantage—Space War

#### Private space mining goes existential – 2 reasons

#### 2] Competition -- Resources in space explodes geopolitical tensions, escalates through satellite use and posturing, and detracts from public interest

Skibba, 18, Nautilus, “Mining in Space Could Lead to Conflicts on Earth”, Ramin Skibba is a science writer and astrophysicist based in Santa Cruz and San Diego. URL: <https://nautil.us/mining-in-space-could-lead-to-conflicts-on-earth-2-7300/>, KR

Major space-faring nations are not among the 16 countries party to the treaty, but they should arguably come to some equitable agreement, since international competition over natural resources in space may very well transform into conflict. Take platinum-group metals. Mining companies have found about 100,000 metric tons of the stuff in deposits worldwide, mostly in South Africa and Russia, amounting to $10 billion worth of production per year, according to the U.S. Geological Survey. These supplies should last several decades if demand for them doesn’t rise dramatically. (According to Bloomberg, supply for platinum-group metals is constrained while demand is increasing.)

Palladium, for example, valued for its conductive properties and chemical stability, is used in hundreds of millions of electronic devices sold annually for electrodes and connector platings, but it’s relatively scarce on Earth. A single giant, platinum-rich asteroid could contain as much platinum-group metals as all reserves on Earth, the Google-backed Planetary Resources claims. That’s a massive bounty. As Planetary Resources and other U.S. and foreign companies scramble for control over these valuable space minerals, competing “land grabs” by armed satellites may come next. Platinum-group metals in space may serve the same role as oil has on Earth, threatening to extend geopolitical struggles into astropolitical ones, something Trump is keen on preparing for. Yesterday he said he’s seriously weighing the idea of a “Space Force” military branch.

NASA’s increasing collaboration with space mining companies could distort and divert efforts previously focused on space exploration.

Moreover, the technology that might enable this free-for-all—versatile “nanosatellites,” no larger than a loaf of bread—is relatively inexpensive. While reporting for a story about these tiny satellites, also known as CubeSats, I came across some missions applicable to mining asteroids. In November, NASA will launch a satellite for a mission called Near-Earth Asteroid Scout, for example. It will deploy a solar sail, propel itself with sunlight, and journey to the asteroid belt, where it will scope out a particular asteroid and analyze its properties. NASA has also awarded grants to Planetary Resources to advance the designs of spectral imagers and propulsion systems for CubeSats, and other missions will develop the satellites’ abilities to communicate and network with each other. NASA also awarded Deep Space Industries contracts to assess commercial approaches for NASA’s asteroid goals, which may involve hosting DSI’s asteroid-prospecting equipment on its missions.

Like all forms of mining, it will be dangerous. If space-mining activities break up asteroids, the resulting debris could be hazardous for satellites, other spacecraft, and astronauts nearby. On the other hand, in a best-case scenario, space mining could be environmentally safe, capture only necessary minerals and water, and, in the more distant future even lead to the construction of a far-flung space station led by NASA and other space agencies, orbiting 200 million miles from Earth and serving as both a mining depot and a pit-stop for passing spacecraft.

But it’s not clear that a pact between the commercial space mining industry and NASA would align with the public’s interest. NASA’s increasing collaboration with space mining companies could distort and divert efforts previously focused on space exploration and basic research, and discourage public interest and engagement in astronomy.

For example, Seager advocated for space mining at a science writing conference I attended in 2015. She’s part of a motley group of advisors for Planetary Resources, including the movie director James Cameron, a lawyer for a prominent Washington D.C. firm, and Dante Lauretta, another astronomer whom I respect. Seager seems to believe that encouraging private space mining will lead to more investments and technological innovation that would enable more scientific research. In a 2012 interview with The Atlantic, for instance, she said, “The bottom line is that NASA is not working the best that it could for space science right now, and so in order for people like me to succeed with my own research goals, the commercial space industry needs to be able to succeed independently of government contracts.”

But if the U.S. and U.S.-based companies lay claim to the richest and most easily accessible prospecting sites, not allowing other companies and nations to share in the wealth, economic and political relations could be damaged. That’s why this seems to be a dangerous path for space explorers. Once you’re on board with the commercial space industry, then you as a researcher must accept, if not support, everything that comes with it. Seager and a few other researchers may be willing to take this risk, but what about the rest of the space science community? Moreover, to succeed, these businesses will seek profitable missions, while science, exploration, and discovery—goals that stimulate public interest—will inevitably have lower priority. (Other commercial spaceflight companies, like Elon Musk’s SpaceX, do generate public interest, but they’re not directly involved in mining asteroids.) NASA may have its shortcomings, but at least its missions and research goals answer to the public. It’s not exactly a welcome thought to imagine more and more of our presence and activity in space being ceded, with NASA’s help, to private industry.

#### CIndependently, that checks any of their mining good offense

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Imagine, for instance, an asteroid that contains as many platinum-group metals as all reserves on Earth. Businesses will compete for the precious resource, and the competing may soon turn into battle by armed satellites, which can lead back to conflicts on Earth. The act of mining itself could also be dangerous: if space-mining break up asteroids, it could harm other satellites, spacecrafts and astronauts.

Commerical space mining could lead to conflicts between profitability and public interest. "Once you’re on board with the commercial space industry, then you as a researcher must accept, if not support, everything that comes with it," Skibba writes. "To succeed, these businesses will seek profitable missions, while science, exploration, and discovery—goals that stimulate public interest—will inevitably have lower priority,"

#### Market expansion guarantees wars over property rights—governments get quickly involved

Funnell 18 – Anthony, Writer for Future Tense News Citing Dean of Law at University of Adelaide, “War in space 'inevitable' because there's so much money to be made, expert warns”, ABC News, 8/23/2018, https://www.abc.net.au/news/2018-08-24/conflict-in-space-is-inevitable-expert-warns/10146314

A leading Australian space law expert has warned conflict over space assets is "inevitable", and more needs to be done now to avert the potential for hostility. Professor Melissa de Zwart, the Dean of Law at the University of Adelaide, says growing commercial interest in the mining of precious minerals on asteroids and planets has heightened the danger. "I think you have to be a realist about that," she said. "Where you have resources, where you have competition for those resources, where you have investment of money in the extraction of those resources ... there will be an expectation of security around that investment." While full-scale mining is yet to be tried, there is significant international interest. Japanese aerospace agency Jaxa has already successfully landed a robotic craft on an asteroid and taken samples. It currently has another probe hovering over an asteroid named Ryugu. Artist's impression of Hayabusa 2 PHOTO: Artist's impression of Jaxa's robotic craft flying above Ryugu. (Source: JAXA) Two American companies — Deep Space Industries and Planetary Resources — are thought to be the leaders in the field, but in May this year a UK firm called Asteroid Mining Corporation also entered the race. "Those corporations will be looking to the nation-state to say, well, are you going to protect our investment in this business?" Professor de Zwart said. A very crowded space The US Government and American firms continue to play a dominant role in more traditional space technology development and deployment. SpaceX, for example, is a major private supplier of rockets, while the US Air Force currently coordinates international satellite traffic, providing advanced warnings about potentially dangerous space debris. Listen to the episode Are we moving away from the notion that space is for all humankind? And is conflict in space inevitable? But the number of players is rapidly increasing. The OECD's Space Forum says more than 80 countries now have some form of space program, mostly concentrated on rockets, satellites and satellite-related services and technology. They estimate the global industry is worth somewhere around $US400 billion and growing quickly. And that figure could skyrocket if, and when, asteroid mining kicks off. Eric Stallmer, the president of the US-based Commercial Spaceflight Federation, a consortium of 85 space-related organisations and businesses, believes that moment is fast approaching. "I think we are looking at a five to 10-year timetable for developing that technology. It makes for an exciting time," he said

#### 3] Dual-use capabilities force China and Russia to intervene – 1NC ev doesn’t assume that china is scared of re-purposed appropriation

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The Artemis **Accords are a culmination of American space policy to enable commercialization** of outer space. However, they pose a variety of problems. To start, any future agreements under the accords **may violate** international law – both **the OST** and the VCLT. While the Trump Administration appears willing to ignore this issue, violating international law **is a dangerous precedent and should be avoided**.118 Further, the dual nature of all space technology means that **any commercial activity in space** that the Artemis Accords enable **could** readily **be converted for belligerent purposes**.119 This would both violate international law and threaten national security. Despite these inherent dangers, the **Trump** Administration has **maintained a bellicose rhetoric** on its space policy.120 Although American technology and investments surpass those of Russia and China, such rhetoric serves **to inflame** already **tense relations.** **Russia and China are** each **pursuing** their own space **programs which threaten national security** interests, but the United States has engaged neither in Artemis Accords diplomacy.121 A. Violations of International Law? **At best**, future Artemis Accords agreements **exist in a gray area** of international law. After all, the Moon Treaty failed to update and clarify the gaps in the OST on space exploration and resource exploitation by non-state actors. The Space Act and the Artemis Accords together represent American state practice and opinio juris as to the meaning of the OST. At worst, the Trump Administration would be blatantly and knowingly violating international law, in particular the ban on national appropriation. Certainly, the Artemis Accords **signal a willingness to push i**nternational **law to the limit**, if not to step over the line. In addition to potentially violating the OST, the Artemis Accords may also violate the VCLT. Though the United States has not ratified the VCLT, the “treaty on treaties” is customary international law and thus binding on all states. Article 41 of the VCLT permits two or more parties to a treaty to make bilateral, inter-se agreements or to modify a treaty among themselves.122 Yet, if these side deals are “incompatible with the effective execution of the object and purpose of the treaty as a whole” then the VCLT forbids them.123 NASA made clear that bilateral Artemis Accords agreements with other nations will be “grounded in the Outer Space Treaty” and that resource utilization will be conducted under the “auspices of the Outer Space Treaty.”124 Therefore, the United States appears ready to create bilateral, inter-se agreements every time it signs an Artemis Accords agreement. **Because Article II** of the OST clearly **bans national appropriation, licensing non-state actors** to create mining colonies on the Moon in safety zones **verges on appropriation**, especially when coupled with Article VI’s responsibility clause based on national activity.125 Overall, the Administration advances on very uneven legal footing, which is further **compounded by** the fact that **space tech**nologies **are** inherently **dual purpose**. B. Dual Purpose Any technology – from rocketry, to satellites, to mining equipment – introduced into space is inherently dual purpose. That is, it may readily be converted to military uses. The OST makes clear that nuclear weapons are prohibited in space. It also completely demilitarizes the Moon, under Article IV.126 However, military **personal may** **participate in** scientific research or other peaceful purposes – i.e., **commercial ones**.127 Hence, from a national security standpoint it would be legal for other rival nations, namely Russia and China, to create lunar bases or asteroid mines. But **should conflict arise, such tech**nology and infrastructure could readily **be turned hostile** and harnessed against American infrastructure in space. **This is troubling because for** a country like **China there is no** obvious **distinction between public and private** industry.128 And from China’s perspective, NASA is still teaming up with SpaceX in public-private partnerships and the DoD has many of similar agreements as well. In fact, in its 2020 Defense Space Strategy, the DoD proclaimed its eagerness to “[l]everage commercial technological advancements and acquisition processes

#### Space wars go nuclear

Grego 18 – Laura, Senior Scientist in the Global Security Program at the Union of Concerned Scientists, Postdoctoral Researcher at the Harvard-Smithsonian Center for Astrophysics, PhD in Experimental Physics at the California Institute of Technology, Space and Crisis Stability, Union of Concerned Scientists, 3-19-18, <https://www.law.upenn.edu/live/files/7804-grego-space-and-crisis-stabilitypdf>

Why space is a particular problem for crisis stability For a number of reasons, space poses particular challenges in preventing a crisis from starting or from being managed well. Some of these are to do with the physical nature of space, such as the short timelines and difficulty of attribution inherent in space operations. Some are due to the way space is used, such as the entanglement of strategic and tactical missions and the prevalence of dual-use technologies. Some are due to the history of space, such the absence of a shared understanding of appropriate behaviors and consequences, and a dearth of stabilizing personal and institutional relationships. While some of these have terrestrial equivalents, taken together, they present a special challenge. The vulnerability of satellites and first strike incentives Satellites are inherently fragile and difficult to protect; in the language of strategic planners, space is an “offense-dominant” regime. This can lead to a number of pressures to strike first that don‘t exist for other, better-protected domains. Satellites travel on predictable orbits, and many pass repeatedly over all of the earth‘s nations. Low-earth orbiting satellites are reachable by missiles much less capable than those needed to launch satellites into orbit, as well as by directed energy which can interfere with sensors or with communications channels. Because launch mass is at a premium, satellite armor is impractical. Maneuvers on orbit need costly amounts of fuel, which has to be brought along on launch, limiting satellites‘ ability to move away from threats. And so, these very valuable satellites are also inherently vulnerable and may present as attractive targets. Thus, an actor with substantial dependence on space has an incentive to strike first if hostilities look probable, to ensure these valuable assets are not lost. Even if both (or all) sides in a conflict prefer not to engage in war, this weakness may provide an incentive to approach it closely anyway. A RAND Corporation monograph commissioned by the Air Force15 described the issue this way: First-strike stability is a concept that Glenn Kent and David Thaler developed in 1989 to examine the structural dynamics of mutual deterrence between two or more nuclear states.16 It is similar to crisis stability, which Charles Glaser described as ―a measure of the countries‘ incentives not to preempt in a crisis, that is, not to attack first in order to beat the attack of the enemy,‖17 except that it does not delve into the psychological factors present in specific crises. Rather, first strike stability focuses on each side‘s force posture and the balance of capabilities and vulnerabilities that could make a crisis unstable should a confrontation occur. For example, in the case of the United States, the fact that conventional weapons are so heavily dependent on vulnerable satellites may create incentives for the US to strike first terrestrially in the lead up to a confrontation, before its space-derived advantages are eroded by anti-satellite attacks.18 Indeed, any actor for which satellites or space-based weapons are an important part of its military posture, whether for support missions or on-orbit weapons, will feel “use it or lose it” pressure because of the inherent vulnerability of satellites. Short timelines and difficulty of attribution The compressed timelines characteristic of crises combine with these “use it or lose it” pressures to shrink timelines. This dynamic couples dangerously with the inherent difficulty of determining the causes of satellite degradation, whether malicious or from natural causes, in a timely way. Space is a difficult environment in which to operate. Satellites orbit amidst increasing amounts of debris. A collision with a debris object the size of a marble could be catastrophic for a satellite, but objects of that size cannot be reliably tracked. So a failure due to a collision with a small piece of untracked debris may be left open to other interpretations. Satellite electronics are also subject to high levels of damaging radiation. Because of their remoteness, satellites as a rule cannot be repaired or maintained. While on-board diagnostics and space surveillance can help the user understand what went wrong, it is difficult to have a complete picture on short timescales. Satellite failure on-orbit is a regular occurrence19 (indeed, many satellites are kept in service long past their intended lifetimes). In the past, when fewer actors had access to satellite-disrupting technologies, satellite failures were usually ascribed to “natural” causes. But increasingly, even during times of peace operators may assume malicious intent. More to the point, in a crisis when the costs of inaction may be perceived to be costly, there is an incentive to choose the worst-case interpretation of events even if the information is incomplete or inconclusive. Entanglement of strategic and tactical missions During the Cold War, nuclear and conventional arms were well separated, and escalation pathways were relatively clear. While space-based assets performed critical strategic missions, including early warning of ballistic missile launch and secure communications in a crisis, there was a relatively clear sense that these targets were off limits, as attacks could undermine nuclear deterrence. In the Strategic Arms Limitation Treaty, the US and Soviet Union pledged not to interfere with each other‘s ―national technical means‖ of verifying compliance with the agreement, yet another recognition that attacking strategically important satellites could be destabilizing.20 There was also restraint in building the hardware that could hold these assets at risk. However, where the lines between strategic satellite missions and other missions are blurred, these norms can be weakened. For example, the satellites that provide early warning of ballistic missile launch are associated with nuclear deterrent posture, but also are critical sensors for missile defenses. Strategic surveillance and missile warning satellites also support efforts to locate and destroy mobile conventional missile launchers. Interfering with an early warning sensor satellite might be intended to dissuade an adversary from using nuclear weapons first by degrading their missile defenses and thus hindering their first-strike posture. However, for a state that uses early warning satellites to enable a “hair trigger” or launch-on-attack posture, the interference with such a satellite might instead be interpreted as a precursor to a nuclear attack. It may accelerate the use of nuclear weapons rather than inhibit it. Misperception and dual-use technologies Some space technologies and activities can be used both for relatively benign purposes but also for hostile ones. It may be difficult for an actor to understand the intent behind the development, testing, use, and stockpiling of these technologies, and see threats where there are none. (Or miss a threat until it is too late.) This may start a cycle of action and reaction based on misperception. For example, relatively low-mass satellites can now maneuver autonomously and closely approach other satellites without their cooperation; this may be for peaceful purposes such as satellite maintenance or the building of complex space structures, or for more controversial reasons such as intelligence-gathering or anti-satellite attacks. Ground-based lasers can be used to dazzle the sensors of an adversary‘s remote sensing satellites, and with sufficient power, they may damage those sensors. The power needed to dazzle a satellite is low, achievable with commercially available lasers coupled to a mirror which can track the satellite. Laser ranging networks use low-powered lasers to track satellites and to monitor precisely the Earth‘s shape and gravitational field, and use similar technologies. 21 Higher-powered lasers coupled with satellite-tracking optics have fewer legitimate uses. Because midcourse missile defense systems are intended to destroy long-range ballistic missile warheads, which travel at speeds and altitudes comparable to those of satellites, such defense systems also have inherent ASAT capabilities. In fact, while the technologies being developed for long-range missile defenses might not prove very effective against ballistic missiles—for example, because of the countermeasure problems associated with midcourse missile defense— they could be far more effective against satellites. This capacity is not just theoretical. In 2007, China demonstrated a direct-ascent anti-satellite capability which could be used both in an ASAT and missile defense role, and in 2009, the United States used a ship-based missile defense interceptor to destroy a satellite, as well. US plans indicated a projected inventory of missile defense interceptors with capability to reach all low earth orbiting satellites in the dozens in the 2020s, and in the hundreds by 2030.22 Discrimination The consequences of interfering with a satellite may be vastly different depending on who is affected and how, and whether the satellite represents a legitimate military objective. However, it will not always be clear who the owners and operators of a satellite are, and users of a satellite‘s services may be numerous and not public. Registration of satellites is incomplete23 and current ownership is not necessarily updated in a readily available repository. The identification of a satellite as military or civilian may be deliberately obscured. Or its value as a military asset may change over time; for example, the share of capacity of a commercial satellite used by military customers may wax and wane. A potential adversary‘s satellite may have different or additional missions that are more vital to that adversary than an outsider may perceive. An ASAT attack that creates persistent debris could result in significant collateral damage to a wide range of other actors; unlike terrestrial attacks, these consequences are not limited geographically, and could harm other users unpredictably. In 2015, the Pentagon‘s annual wargame**,** or simulated conflict, involving space assets focused on a future regional conflict. The official report out24warnedthatit was hard to keep the conflict contained geographically when using anti-satellite weapons: As the wargame unfolded, a regional crisis quickly escalated, partly because of the interconnectedness of a multi-domain fight involving a capable adversary. The wargame participants emphasized the challenges in containing horizontal escalation once space control capabilities are employedto achieve limited national objectives. Lack of shared understanding of consequences/proportionalityStates havefairly similar understandings of the implications of military actions on the ground, in the air, and at sea,built over decades of experience. The United States and the Soviet Union/Russia have built some shared understanding of each other‘s strategic thinking on nuclear weapons, though this is less true for other states with nuclear weapons. But in the context of nuclear weapons, there is an arguable understanding about the crisis escalation based on the type of weapon (strategic or tactical) and the target (counterforce—against other nuclear targets, or countervalue—against civilian targets). Because of a lack of experience in hostilities that target space-based capabilities, it is not entirely clear what the proper response to a space activity is and where the escalation thresholds or “red lines” lie. Exacerbating this is the asymmetry in space investments; not all actors will assign the same value to a given target or same escalatory nature to different weapons.

#### Indepently, Hostile terrestrial conflict escalates and go nuclear

Talmadge 18 [PhD in Political Science from MIT, BA in Government from Harvard, Professor of Security Studies at Georgetown University, “Beijing’s Nuclear Option,” Foreign Affairs, [https://www.foreignaffairs.com/articles/china/2018-10-15/beijings-nuclear-option]//recut](https://www.foreignaffairs.com/articles/china/2018-10-15/beijings-nuclear-option%5d//recut) VM

As China’s power has grown in recent years, so, too, has the risk of war with the United States. Under President Xi Jinping, China has increased its political and economic pressure on Taiwan and built military installations on coral reefs in the South China Sea, fueling Washington’s fears that Chinese expansionism will threaten U.S. allies and influence in the region. U.S. destroyers have transited the Taiwan Strait, to loud protests from Beijing. American policymakers have wondered aloud whether they should send an aircraft carrier through the strait as well. Chinese fighter jets have intercepted U.S. aircraft in the skies above the South China Sea. Meanwhile, U.S. President Donald Trump has brought long-simmering economic disputes to a rolling boil.

A war between the two countries remains unlikely, but the prospect of a military confrontation—resulting, for example, from a Chinese campaign against Taiwan—no longer seems as implausible as it once did. And the odds of such a confrontation going nuclear are higher than most policymakers and analysts think.

Members of China’s strategic com­munity tend to dismiss such concerns. Likewise, U.S. studies of a potential war with China often exclude nuclear weapons from the analysis entirely, treating them as basically irrelevant to the course of a conflict. Asked about the issue in 2015, Dennis Blair, the former commander of U.S. forces in the Indo-Pacific, estimated the likelihood of a U.S.-Chinese nuclear crisis as “somewhere between nil and zero.”

This assurance is misguided. If deployed against China, the Pentagon’s preferred style of conventional warfare would be a potential recipe for nuclear escalation. Since the end of the Cold War, the United States’ signature approach to war has been simple: punch deep into enemy territory in order to rapidly knock out the opponent’s key military assets at minimal cost. But the Pentagon developed this formula in wars against Afghanistan, Iraq, Libya, and Serbia, none of which was a nuclear power.

China, by contrast, not only has nuclear weapons; it has also intermingled them with its conventional military forces, making it difficult to attack one without attacking the other. This means that a major U.S. military campaign targeting China’s conventional forces would likely also threaten its nuclear arsenal. Faced with such a threat, Chinese leaders could decide to use their nuclear weapons while they were still able to.

As U.S. and Chinese leaders navigate a relationship fraught with mutual suspicion, they must come to grips with the fact that a conventional war could skid into a nuclear confrontation. Although this risk is not high in absolute terms, its consequences for the region and the world would be devastating. As long as the United States and China continue to pursue their current grand strategies, the risk is likely to endure. This means

#### Nuclear war causes extinction.

Starr ’17 (Steven; director of the University of Missouri’s Clinical Laboratory Science Program, senior scientist at the Physicians for Social Responsibility, Associate member of the Nuclear Age Peace Foundation, expert in the environmental consequences of nuclear war; 1/9/17; “Turning a Blind Eye Towards Armageddon — U.S. Leaders Reject Nuclear Winter Studies”; <https://fas.org/2017/01/turning-a-blind-eye-towards-armageddon-u-s-leaders-reject-nuclear-winter-studies/>; Federation of American Scientists; accessed 11/24/18; TV) [AV]

The detonation of an atomic bomb with this explosive power will **instantly ignite fires** over a surface area of three to five square miles. In the recent studies, the scientists calculated that the **blast**, **fire**, and **radiation** from a war fought with 100 atomic bombs could produce **direct fatalities** comparable to all of those worldwide in World War II, or to those once estimated for a “**counterforce**” **nuclear war** between the superpowers. However, the **long-term environmental effects** of the war **could** significantly disrupt the global weather for at least a decade, which would likely **result in** a vast **global famine**. The scientists predicted that **nuclear firestorms** in the burning cities would cause at least five million tons of **black carbon smoke** to quickly rise above cloud level into the stratosphere, where it could not be rained out. The smoke would circle the Earth in **less than two weeks** and would form **a** global **stratospheric smoke layer** that **would remain for** more than **a decade**. The smoke would absorb warming sunlight, which would **heat the smoke** to temperatures near the boiling point of water, producing **ozone losses of** 20 to **50 percent** over populated areas. This would almost double the amount of UV-B reaching the most populated regions of the mid-latitudes, and it would create UV-B indices unprecedented in human history. In North America and Central Europe, the time required to get a painful sunburn at mid-day in June could decrease to as little as six minutes for fair-skinned individuals. As the smoke layer blocked warming sunlight from reaching the Earth’s surface, it would produce the **coldest** average **surface temperatures** in the last 1,000 years. The scientists calculated that global **food production would decrease** by 20 to **40 percent** during a five-year period following such a war. Medical experts have predicted that the shortening of growing seasons and corresponding decreases in agricultural production could cause up to **two billion** people to perish from **famine**. The climatologists also investigated the effects of a nuclear war fought with the vastly more powerful modern **thermonuclear** weapons possessed by the United States, Russia, China, France, and England. Some of the thermonuclear weapons constructed during the 1950s and 1960s were 1,000 times more powerful than an atomic bomb. During the last 30 years, the average size of thermonuclear or “strategic” nuclear weapons has decreased. Yet today, each of the approximately 3,540 strategic weapons deployed by the United States and Russia is seven to **80 times** more powerful than the atomic bombs modeled in the India-Pakistan study. The smallest strategic nuclear weapon has an explosive power of **100,000 tons of TNT**, compared to an atomic bomb with an average explosive power of 15,000 tons of TNT. Strategic nuclear weapons produce much larger nuclear firestorms than do atomic bombs. For example, a standard Russian 800-kiloton warhead, on an average day, will ignite fires covering a surface area of 90 to 152 square miles. A **war** fought with hundreds or thousands of U.S. and Russian strategic nuclear weapons would **ignite immense** **nuclear firestorms** covering land surface areas of many thousands or **tens of thousands** of square miles. The scientists calculated that these fires would produce up to **180 million tons** of black carbon soot and **smoke**, which would form a dense, **global stratospheric smoke layer**. The smoke would remain in the stratosphere for 10 to **20 years**, and it **would block** as much as **70 percent of sunlight** from reaching the surface of the Northern Hemisphere and 35 percent from the Southern Hemisphere. So much sunlight would be blocked by the smoke that the noonday sun would resemble a full moon at midnight. Under such conditions, it would only require a matter of days or weeks for daily minimum **temperatures** to **fall below freezing** in the largest agricultural areas of the Northern Hemisphere, where freezing temperatures would occur every day for a period of between one to more than two years. Average surface temperatures would become colder than those experienced 18,000 years ago at the height of the last Ice Age, and the prolonged cold would cause average rainfall to decrease by up to 90%. Growing seasons would be completely eliminated for more than a decade; it would be **too cold and dark** to grow food crops, **which would doom the** majority of the **human population.** NUCLEAR WINTER IN BRIEF The profound cold and darkness following nuclear war became known as nuclear winter and was first predicted in 1983 by a group of NASA scientists led by Carl Sagan. During the mid-1980s, a large body of research was done by such groups as the Scientific Committee on Problems of the Environment (SCOPE), the World Meteorological Organization, and the U.S. National Research Council of the U.S. National Academy of Sciences; their work essentially supported the initial findings of the 1983 studies. The idea of nuclear winter, published and supported by prominent scientists, generated extensive public alarm and put political pressure on the United States and Soviet Union to reverse a runaway nuclear arms race, which, by 1986, had created a global nuclear arsenal of more than 65,000 nuclear weapons. Unfortunately, this created a backlash among many powerful military and industrial interests, who undertook an extensive media campaign to brand nuclear winter as “bad science” and the scientists who discovered it as “irresponsible.” Critics used various uncertainties in the studies and the first climate models (which are primitive by today’s standards) as a basis to criticize and reject the concept of nuclear winter. In 1986, the Council on Foreign Relations published an article by scientists from the National Center for Atmospheric Research, who predicted drops in global cooling about half as large as those first predicted by the 1983 studies and described this as a “nuclear autumn.”

#### Prefer a pragmatist feminist approach – fundamentalist opposition to war reverts into abstraction and neglects contingent necessary uses of force

Peach 04 – associate professor of philosophy and religion at American University. The Lucinda Joy Peach Scholarship was established in 2008 in her memory. She was co-director of the university’s MA program in Ethics, Peace, and Global Affairs and specialized in moral philosophy, applied ethics (including bioethics, feminist ethics, and legal ethics), religion and politics, gender and religion, and women’s studies.

Lucinda Joy Peach, “A Pragmatist Feminist Approach to the Ethics of Weapons of Mass Destruction,” *Ethics and Weapons of Mass Destruction*, 2004, Pgs. 436-441.

Recognizing the historical and global reality of war making and armed force as means of resolving conflicts and adopting strategies to maximize justice and minimize immorality when such means are adopted is not the same as “implicitly accepting the practices of war,” at least in the absence of demonstrably effective means of eliminating such conflicts. To ignore the reality of the continuing resort to war and armed force is itself to revert to abstraction rather than offering a practical method for eliminating the human suffering and incalculable damage caused by war and armed conflict.

Here Cohn and Ruddick reveal (intentionally or otherwise) their situatedness as citizens of a war-making state, one that has had the choice in many, if not all, instances since the mid-twentieth century, at least, of deciding whether or not to go to war. Just as Cohn and Ruddick criticize just war theory for failing to explore nonviolent alternatives once a just cause is determined or war has begun, their antiwar feminist approach fails to offer concrete suggestions for avoiding armed conflict when a nation or people is confronted with armed aggression or assault by others, the situation where the options boil down to “fight or die.” This perspective fails to look at war from the point of view of the aggressed-against, when armed conflict becomes a necessity in order to retain national and/or cultural and/or ethnic identity from subjugation by the aggressor(s). In such circumstances, the moral necessity of armed force looks quite different. And in such circumstances, the threatened use of WMD can be seen as less evil than the alternatives, such as doing nothing and being conquered or fighting a conventional war and faring poorly.

Rather than reverting to abstract thinking about war, pragmatist feminism affirms just war theory’s casuistic approach to particular armed conflicts as well as its position that such means are sometimes morally justifiable or even morally obligatory in order to protect oneself (individual or nation) or innocent third parties. Further, pragmatist feminism affirms just war thinking’s attention to particular conflicts rather than war in the abstract and its stance of moderation and of imposing the minimal suffering necessary to accomplish the objective of restoring the peace.24 Thus, with respect to the military response of the United States to the September 11 terrorist attacks, a pragmatist feminist application of just war criteria yields the conclusion that the jus ad bellum principles of “last resort” and “proportionality,” as well as the in bello principles of “proportionality” and “discrimination,” were not satisfied.

A second difference in the two feminist perspectives emerges out of the antiwar feminist observation that war and militarism are not separate from everyday life but integral aspects of it.25 While this is an extremely important insight into the underlying conditions of war and militarism, it needs to be joined with alternative proposals for addressing the “large-scale military conflict.” There has been scant attention to this issue in antiwar feminist scholarship. Even if one assumes, as antiwar feminists do, that war is a “presence” in everyday life and not merely a discrete “event” that occasionally “erupts,”26 it is nonetheless the case that “war” is more damaging and harmful, and creates greater suffering in a multiplicity of ways, than the absence of war. Pragmatist feminist thinking about the ethics of WMD is attentive to how such differences in consequences differentiate war from “everyday life.”

A third significant area of difference between the two types of feminist theories concerns responses to the causes of war. Whereas pragmatist feminists agree with antiwar feminists that wars are partially a mutual construction, they also insist that some wars have much more to do with unjust aggression for which opposing sides do not share equal responsibility. Antiwar feminism fails to accept that some wars are not only necessary as a matter of prudence, but also morally justifiable on feminist grounds, for example, humanitarian intervention to end the severe oppression of innocent victims.27

For a pragmatist feminist, the current state of international affairs unfortunately requires consideration of the circumstances in which the threatened or actual use of such weapons for defensive or deterrent purposes may be morally allowable or even morally necessary. Given these circumstances, pragmatist feminism considers the just war tradition to provide a morally useful source of norms relating to the use of weapons in war.

#### Rejecting empiricism and scientific objectivity is bad – viewing the world through the lens of testable and observable claims is the only way to understand international relations, and feminist analytical projects fail to make sense absent testable claims about how gender operates

Caprioli 04 – Associate Professor of Political Science and Director of the International Studies Program at University of Minnesota Duluth. Her research focuses broadly on international security and specifically on understanding why states, societies, and individuals engage in violent behavior.

Mary Caprioli, “Feminist IR Theory and Quantitative Methodology: A Critical Analysis,” *International Studies Review*, 2004, https://academic.oup.com/isr/article/6/2/253/1796501

One must assume that feminist IR scholars support the pursuit of research that broadens our understanding of international relations. Such a research agenda must include both evidence and logic (Bueno de Mesquita 2002; Chan 2002). Theorizing, case study evidence (specific details), and external validity (generality) are all necessary components of research – only through a combination of all three modes of inquiry can we begin to gain confidence in our understanding. ‘‘And still we debate what seems to have been obvious to our predecessors: to gain understanding, we need to integrate careful empirical analysis with the equally careful application of the power of reason’’ (Bueno de Mesquita 2002:2). Different types of scholarship ‘‘make different contributions that can be mutually beneficial, as when historical studies isolate immediate causes that act as catalysts for the general tendencies identified in aggregate analyses’’ (Chan 2002:754).

Without logic and theory, the general tendencies identified through quantitative analysis are incomplete. ‘‘In the absence of guidance from such logic, the data exercises degenerate into mindless fishing expeditions and are vulnerable to spurious interpretations’’ (Chan 2002:750). Most scholars concerned with gender certainly owe a debt to Jean Bethke Elshtain (1987), Cynthia Enloe (1989), and Ann Tickner (1992). These IR feminists shattered the publishing boundary for feminist IR scholarship and tackled the difficult task of deconstructing IR theory, including its founding myths, thereby creating the logic to guide feminist quantitative research. It is only through exposure to feminist literature that one can begin to scientifically question the sexist assumptions inherent in the dominant paradigms of international relations.

Feminist theory is rife with testable hypotheses that can only strengthen feminist IR scholarship by identifying false leads and logical errors or by identifying general tendencies that deserve further inquiry. Without the solid body of feminist literature that exists, quantitative feminist IR scholarship would be meaningless. The existing feminist literature based on critical-interpretive epistemologies forms the rationale for quantitative testing. No one methodology is superior to the others. So, why create a dichotomy if none exists? All methodologies contribute to our knowledge, and, when put together like pieces of a puzzle, they offer a clearer picture. The idea is to build a bridge of knowledge, not parallel walls that are equally inadequate in their understanding of one another and in explaining international relations.

Further undermining the false dichotomization between positivist and interpretivist methodologies is the lack of proof that quantitative methodologies cannot challenge established paradigms or, more important, that a critical-interpretive epistemology is unbiased or more likely to uncover some truth that is supposedly obscured by quantitative inquiry. Part of the rationale for the perpetuation of the dichotomy between methodologies and for the critique of quantitative methodology as a valid type of feminist inquiry involves confusing theory and practice. On a theoretical level, quantitative research is idealized as value-free and objective, which of course it is not – particularly when applied to the social sciences. Feminists opposed to quantitative methodologies imagine that other scholars necessarily assume such scholarship to be objective (see Brown 1988). Few social scientists using quantitative methodologies, however, would suggest that this methodology is value-free, which is why so much emphasis is placed on defining measures. This procedure leaves room for debate and provides space for feminist inquiry. For example, feminists might wish to study the effect of varying definitions of democracy and of security on the democratic peace thesis, ultimately combining methodologies to provide a more thorough understanding of the social matrix underlying state behavior.

The second aspect perpetuating the dichotomy between methodologies is in erroneously identifying statistics as having an inherently masculine agenda. As Evelyn Hammonds and Helen Longina (1990) argue, feminists need to present a clearly articulated critique of quantitative methodology demonstrating its inherent masculinity. This association between statistics and masculinity is based on a line of feminist inquiry that exposes the association of masculinity with objectivity and the scientific method (Keller 1983:187). As a result, a certain prestige in and inherent bias toward using the scientific method arises precisely because the world is organized hierarchically based on gender (Keller 1983:202). But this belief in the superiority of quantitative methods is socially constructed (Keller 1983; Hughes 1995). If more women were to use the scientific method, a different science might emerge (Keller 1983; Hooper 2001). It is unfortunate that some feminists feel the need to justify conventional feminist epistemologies because of the apparent low status such research has. As Sandra Harding (1987:1) has argued, no distinctive feminist methodology exists because each methodology can contribute to feminist goals

Whether or not a traditional or feminist IR scholar runs the same statistical analysis, the numerical results should be identical. Although the history of statistical methods might be perceived as having had questionable motivations with its genesis rooted within a particular social, political, and economic context, this beginning does not invalidate knowledge gained from mathematics or render the mathematics false (Hughes 1995). The math itself is not necessarily biased. The interpretation and the measurement used, however, are subject to debate. This fact does not reveal a flaw in the methodology but merely indicates that data are subject to the interpretation of the scholar who must rely on theory to guide analysis.

It is true that often-used measures tend to be biased by the worldviews of the scholars who constructed them, and that those worldviews may or may not include considerations of gender. By largely ignoring feminist empiricist scholarship, however, conventional feminists are missing an opportunity to make an important contribution to IR scholarship in helping identify and critique the gendered assumptions that can affect measurement and the interpretation of results. For illustrative purposes in highlighting the importance of being precise in our definitions and measurements, let us examine the democratic peace thesis and the role of definitions. Feminists should join Ido Oren (1995) in debating how democracy should be defined. Is the concept of democracy normative or a description of the type of government found in the dominant states of our system – those that cannot be characterized as autocratic or totalitarian? Or, perhaps, democracy should be based on political rights. Spencer Weart (1994:302), for example, labels a state a democracy ‘‘if the body of citizens with political rights includes at least two-thirds of the adult males.’’ Notwithstanding the one-third of adult males who are disenfranchised, this definition completely excludes women from the analysis.

Feminists might also wish to question the following assumption: ‘‘Democratic norms have become deeply entrenched, since many states have been democracies for long periods and principles such as true universal suffrage have been put into practice’’ (Maoz and Russett 1993:627). What exactly is true universal suffrage, and what are democratic norms if they exclude women’s social, economic, and political equality (see Caprioli forthcoming-b)? Equally shocking is the statement that ‘‘in a democracy, the government rarely needs to use force to resolve conflicts; order can be maintained without violent suppression’’ (Maoz and Russett 1993:630). Yet, democracies routinely overlook social violence and often this violence is against women (Broadbent 1993; Thomas 1993; Moon 1997; Caprioli 2003). By refusing to recognize quantitative methodologies as valid, feminists fail to offer a much needed critique and reconceptualization of current IR research such as that just described. Feminists, in essence, are, then, not in a position to take advantage of the opportunity to directly engage the broader community of IR scholars.

Feminists offer no direct refutation of the statistics employed by IR scholars but rather of the supposed assumption of objectivity behind the methodology. Perhaps this is because the statistical results themselves may be irrefutable given the definitions used. Feminists argue that reality is constructed through words (Dworkin 1974, 1979, 1987; Cohn 1987; MacKinnon 1987, 1989, 1993; Hartsock 1989; Povinelli 1991; Milliken and Sylvan 1996). Essentially, one can only communicate ideas that the language allows. Statistics, however, is not analogous to language and is not restrictive. Controversy usually occurs over the rationales that are used for coding and the interpretation of results. Definitions and predictions, however, should be open to debate, including consideration of the alternative that women may not matter in the current structure of the international arena given the reality of state power. Yet, even this conclusion creates space for feminist dialogue in theorizing about the characteristics that would need to be present for constructing a different world that includes gender equality.

So, quantitative methods could become one common approach to studying issues important to feminists. Conventional feminists, thus, would benefit from continuing to explore how quantitative research can further their purposes. Data, such as that provided in the UN Statistical Yearbook, the UN Demographic Yearbook, the World Report on Economics and Social Conditions, The World Tables, among others, are often used to further feminist goals. At the most basic level, IR feminists argue that the exclusion and subordination of women is a global problem. We know this fact based on data – quantitatively derived data. Furthermore, international organizations routinely build support for their policies, such as for micro-credit for women, based on statistics. And though largely ignored, quantitative studies are sometimes cited if they support conventional feminist IR arguments. For example, a study by Mark Tessler and Ina Warriner (1997) has been used to lend credence to the argument that ‘‘reducing unequal gender hierarchies could make a positive contribution to peace and social justice’’ (Tickner 2001:61).

A Response to the ‘‘Add Gender and Stir’’ Criticism

The derision with which many conventional feminists view feminist quantitative studies persists to the detriment of both feminist and other types of IR scholarship. As Jan Jindy Pettman (2002) has argued, however, no single feminist position exists in international relations. One of the most common feminist critiques of feminist quantitative research is that scholars cannot simply ‘‘add gender and stir’’ (Peterson 2002; Steans 2003), for gender is not just one of many variables. Yet, gender is one of many variables when we are discussing international issues, from human rights to war. As Fred Halliday (1988) has observed, gender is not the core of international relations or the key to understanding it. Such a position would grossly overstate the feminist case. Gender may be an important explanatory and predictive component but it certainly is not the only one.

Such a critique only serves to undermine the feminist argument against a scientific methodology for the social sciences by questioning the scholarship of those who employ quantitative methodologies. One does not pull variables ‘‘out of the air’’ to put into a model, thereby ‘‘adding and stirring.’’ Variables are added to models if a theoretical justification for doing so exists:

the basic method of social science remains the same: make a conjecture about causality; formulate that conjecture as an hypothesis, consistent with established theory (and perhaps deduced from it, at least in part); specify the observable implications of the hypothesis; test for whether those implications obtain in the real world; and overall, ensure that one’s procedures are publicly known and replicable. Relevant evidence has to be brought to bear on hypotheses generated by theory for the theory to be meaningful. (Keohane 1998:196)

Peterson (2002:158) postulates that ‘‘as long as IR understands gender only as an empirical category (for example, how do women in the military affect the conduct of war?), feminisms appear largely irrelevant to the discipline’s primary questions and inquiry.’’ Yet, little evidence actually supports this contention – unless one is arguing that gender is the only important category of analysis.

If researchers cannot add gender to an analysis, then they must necessarily use a purely female-centered analysis, even though the utility of using a purely female-centered analysis seems equally biased. Such research would merely be gender-centric based on women rather than men, and it would thereby provide an equally biased account of international relations as those that are male-centric. Although one might speculate that having research done from the two opposing worldviews might more fully explain international relations, surely an integrated approach would offer a more comprehensive analysis of world affairs.

Beyond a female-centric analysis, some scholars (for example, Carver 2002) argue that feminist research must offer a critique of gender as a set of power relations. Gender categories, however, do exist and have very real implications for individuals, social relations, and international affairs. Critiquing the social construction of gender is important, but it fails to provide new theories of international relations or to address the implications of gender for what happens in the world. Sylvester (2002a) has wondered aloud whether feminist research should be focused primarily on critique, warning that feminists should avoid an exclusive focus on highlighting anomalies, for such a focus does not add to feminist IR theories.

Without measurement, no science of social behavior can exist (Frankfort-Nachmias and Nachmias 2000). We infer the presence of gender discrimination, for example, through empirically observable measures that indicate the extent of its presence (Frankfort-Nachmias and Nachmias 2000). In social science, to measure any complex subject, we use indicators of concepts that are not directly observable. As Susan Gal (1991:175) argues ‘‘gender is better seen as a system of culturally constructed relations of power, produced and reproduced in interaction between and among men and women.’’ We know, for instance, that masculine and feminine values are not inherent to each biological sex but are adopted behaviors (Goffman 1976). Gender (masculine/feminine) and biological sex (men/women), however, are often used interchangeably (see Carpenter 2002).

Although gender and sex have been conflated, one could argue that it is difficult, if not impossible, to identify social characteristics of women that are unique from those of gender-prescribed values and roles and from those of men (see Caprioli 2000, 2003; Hooper 2001). The importance of discussing gender, however, is in understanding that it is considered a political means of domination with masculine characteristics valued over feminine (Humm 1990). This hierarchy based on gender leads to ‘‘social relations of domination and subordination’’ (Tickner 1992:128). Sex, therefore, is a meaningful category in feminist analysis because it helps us understand the effects of the prevailing masculine/feminine stereotypes at all levels of analysis. In other words, sex becomes an indicator of gender and can be empirically measured in keeping with the stated purpose of feminism, which involves furthering the cause of women as a biological sex and examining gender as a social construct.

Quantitative research can be used to analyze the significance of gender as long as (1) gender is recognized as socially constructed, (2) sociopolitical outcomes are demonstrated to be a result of gender construction, and (3) ‘‘a convincing empirical account of the ways in which the belief operated to constrain, enable, or constitute the outcomes in question’’ (Carpenter 2003:298) is provided. Therefore, quantitative gender analysis can meet Robert Keohane’s (1998:197) challenge to specify propositions that are tested using systematically gathered evidence.

Quantitative Contributions Supporting Feminist Theories

Although many IR feminists claim ‘‘that positivist methodologies are inadequate for building a body of knowledge that takes gender identity and hierarchical social relations as its central framework and that acknowledges the mutual constitution of theory and practice’’ (Tickner 2002:196), quantitative IR scholars, some of whom would consider themselves feminist, have begun to build just such a body of knowledge, combining feminist and security studies. The following offers a brief summary of the feminist implications of some of these quantitative international relations studies. This discussion is not meant to be exhaustive but rather a representation of existing quantitative security studies that both add to and draw from feminist IR scholarship. Such a list needs to start with the literature on public opinion, which might be considered one of the first quantitative feminist literatures, although it is not always focused on international studies.

Tessler and Warriner (1997) contribute to the dialogue between gender studies and international relations with their empirical study analyzing survey data from Israel, Egypt, Palestine, and Kuwait. They test the extent to which sex and gender equality explain the variance in views about war and peace. They conclude that sex is not a significant predictor of attitudes about war but that the relation between norms of gender equality and attitudes toward international conflict is statistically significant.

Mark Tessler, Jodi Nachtwey, and Audra Grant (1999) extended Tessler and Warriner’s (1997) study but focus exclusively on the relationship between sex and attitudes toward international conflict. This study includes more data from the original countries and adds data for Jordan and Lebanon. The authors conclude that no statistically significant relationship exists between sex and attitudes toward international conflict in the Middle East. These conclusions differ from studies of the United States and Europe, which, although not uniform and not always substantively significant, do find a statistically significant difference between the support of men and women for the use of military force (for example, Fite, Genest, and Wilcox 1990; Conover and Sapiro 1993; McGlen and Sarkees 1993; Wilcox, Ferrar, and Allsop 1993). Indeed, Clyde Wilcox, Laura Hewitt, and Dee Allsop’s (1996) findingsFlike those of Tessler, Nachtwey, and GrantFfind cross-national differences in the link between sex and attitudes toward international conflict.

Monty Marshall and Donna Ramsey (1999) conducted one, if not the first, quantitative study of feminist international relations theories regarding state behavior. The authors tested the feminist claim that issues of gender are important in predicting the use of force during interstate disputes. They included gender empowerment in their multiple regression, first to test whether gender equality helped predict state use of force, and second as a means of broadening our understanding of democracy within the democratic peace literature by using gender equality as one indicator of the entrenchment of democratic values. Although the authors make no strong causal inferences based on their analysis, they do find a robust relationship between gender empowerment and the willingness of states to use force. The authors further argue that the use of violence institutionalizes discrimination and inhibits further gender equality. Marshall and Ramsey (1999:32) conclude ‘‘that gender theory and analysis may be successfully integrated with traditional international relations theory and quantitative research methods.’’

Adding to the quantitative feminist IR literature, Caprioli (2000) applied feminist theory and drew upon the empirical findings of the public opinion surveys discussed above to test the potential impact of domestic gender equality on state behavior internationally. She used logistic regression to test the relationship between several measures of women’s social, economic, and political equality and the escalation of violence during militarized interstate disputes. Caprioli concludes that higher levels of domestic gender equality result in less emphasis on military action in settling international disputes.

Caprioli and Boyer (2001) extend Caprioli’s earlier work to assess the impact of domestic gender equality on state’s international crisis behavior. The authors provide an empirically based descriptive analysis of the behavior of states with female leaders as primary decision makers during times of international crises. They then use logistic regression to test the relationship between domestic gender equality and the level of violence exhibited during international crises, concluding that the severity of violence in a crisis does decrease as domestic gender equality increases.

In a later study, Caprioli (2003) further tested the relationship between domestic gender equality and state behavior during militarized interstate disputes. In this piece, she included an analysis relating gendered structural inequality to domestic norms of violence. Using logistic regression to assess the role of domestic gender equality in predicting the likelihood of a state using force first during interstate disputes permits a more rigorous test of the author’s earlier work by isolating the effects of reciprocated violence. Caprioli concludes that higher levels of gender equality lower the level of state aggression during interstate disputes. In other words, states with higher levels of gender inequality are more likely to use force first in interstate disputes.

Caprioli (forthcoming-a) extends her earlier findings relating gender equality to interstate behavior to internal or domestic level conflict. In this research, the author seriously considers the implications of feminist theories by providing an analysis of structural violence and the role of gender inequality and discrimination in nationalist uprisings to assess this variable’s potential role in predicting intrastate violence. Caprioli uses logistic regression to examine the impact of gender inequality on the likelihood of intrastate conflict and concludes that domestic gender equality reduces the occurrence of intrastate violence. In other words, states characterized by gender inequality are more likely to experience intrastate conflict, confirming the basic link between gender inequality and intrastate conflict.

Patrick Regan and Aida Paskeviciute (2003) extended the analysis of gender equality and state use of force internationally beyond the state level by focusing on whether the gender distribution of political power at the societal level influences the willingness of the ruling elite to engage in interstate disputes. The authors conclude that women’s access to the political arena helps predict the likelihood of a state engaging in interstate disputes and in war. The authors offer a policy prescription suggesting that support for family planning facilities can facilitate more peaceful interstate relations.

To more closely examine some of the sexist assumptions within security studies, Caprioli (forthcoming-b) engaged in a large empirical study to examine whether notions of security are gender neutral in creating the same political freedoms and human rights for men and women. More specifically, she was interested in testing whether democracy and human rights positively relate to women’s security. This piece directly explored feminist IR theories regarding gender bias by examining these universalist security assumptions, highlighting their gender bias, and emphasizing the need to move beyond naive assumptions of human security. Caprioli concluded that security norms are gender biased in that women lack security across all polity types and that this insecurity is not fully captured using typical measures of human rights.

Focusing on sex rather than gender, Natalie Florea and her colleagues (2003) empirically tested feminist hypotheses regarding differences in negotiating styles between men and women. The authors found that gender affected negotiating style based on evidence indicating that all-female groups behaved differently from allmale groups and that mixed gendered groups behaved differently from both single sex groups. Women tended to negotiate by appealing to higher principles such as justice or the consequences on participants (see also Gilligan 1982). Consider the difference this type of negotiating style might make as more women gain political equality and become policymakers.

The studies discussed above further our understanding of the role that gender equality can play in predicting state behavior. Some of these studies have direct policy implications concerning gender equality. Rather than making a case for gender equality based on issues of social justice (though that ought to be sufficient), these studies argue that discrimination and violence against women have implications for the state. Indeed, this quantitative international relations literature leads to several conclusions:

(1) The mixed findings in the public opinion scholarship regarding sex and attitudes toward international conflict create a space for further feminist theorizing and demand further empirical analyses.

(2) Norms of gender equality seem to be associated with attitudes toward international conflict. Based on the public opinion literature, norms of gender equality are better predictors of state behavior than is sex (Tessler and Warriner 1997; Tessler, Nachtwey, and Grant 1999).

(3) Gender empowerment decreases states’ use of force internationally (Marshall and Ramsey 1999).

(4) Gender equality limits the escalation of violence during militarized interstate disputes (Caprioli 2000).

(5) Gender equality decreases the severity of violence during crisis (Caprioli and Boyer 2001).

(6) Gender equality reduces the likelihood that a state will use force first in interstate disputes (Caprioli 2003).

(7) Gender equality reduces the occurrence of intrastate violence (Caprioli forthcoming-a).

(8) The greater the access of women to political power, the lower the likelihood that a state will engage in interstate disputes and in war (Regan and Paskeviciute 2003).

(9) Security norms are gender biased, thus highlighting the need for policy prescriptions that address the differential impact of democracy and human rights on women and men (Caprioli forthcoming-b).

(10) Women and men use different negotiating styles, potentially leading to different foreign policy outcomes (Florea et al. 2003).

## 1AC—Framework

#### The standard is maximizing expected wellbeing.

#### Prefer it:

#### 1] Death is bad and outweighs – agents can’t act if they fear for their bodily security which constrains every ethical theory

#### 2] Intuitions outweigh - since they’re the foundational basis for any argument and theories that contradict our intuitions are most likely false even if we can’t deductively determine why

**3] Extinction o/ws - That threatens the ontological conditions of life itself**

**Burke et al.**, Associate Professor of International and Political Studies @ UNSW, Australia, **‘16**

(Anthony, Stefanie Fishel is Assistant Professor, Department of Gender and Race Studies at the University of Alabama, Audra Mitchell is CIGI Chair in Global Governance and Ethics at the Balsillie School of International Affairs, Simon Dalby is CIGI Chair in the Political Economy of Climate Change at the Balsillie School of International Affairs, and, Daniel J. Levine is Assistant Professor of Political Science at the University of Alabama, “Planet Politics: Manifesto from the End of IR,” Millennium: Journal of International Studies 1–25)

8. Global ethics must respond to mass extinction. In late 2014, the Worldwide Fund for Nature reported a startling statistic: according to their global study, 52% of species had gone extinct between 1970 and 2010.60 This is not news: for three decades, conservation biologists have been warning of a ‘sixth mass extinction’, which, by definition, could eliminate more than three quarters of currently existing life forms in just a few centuries.61 In other words, it could threaten the practical possibility of the survival of earthly life. Mass extinction is not simply extinction (or death) writ large: **it is a qualitatively different phenomena that demands its own ethical categories.** It cannot be grasped by aggregating species extinctions, let alone the deaths of individual organisms. Not only does it erase diverse, irreplaceable life forms, their **unique histories** and **open-ended possibilities**, but it **threatens the ontological conditions of Earthly life**.

IR is one of few disciplines that is explicitly devoted to the pursuit of survival, yet it has almost nothing to say in the face of a possible mass extinction event.62 It utterly lacks the conceptual and ethical frameworks necessary to foster diverse, meaningful responses to this phenomenon. As mentioned above, Cold-War era concepts such as ‘nuclear winter’ and ‘omnicide’ gesture towards harms massive in their scale and moral horror. However, they are asymptotic: they imagine nightmares of a severely denuded planet, yet they do not contemplate the **comprehensive negation** that a mass extinction event entails. In contemporary IR discourses, where it appears at all, extinction is treated as a problem of scientific management and biopolitical control aimed at securing existing human lifestyles.63 Once again, this approach fails to recognise the reality of extinction, which is a **matter of being and nonbeing**, not one of life and death processes.

Confronting the enormity of a possible mass extinction event requires a total overhaul of human perceptions of what is at stake in the disruption of the conditions of Earthly life. The question of what is ‘lost’ in extinction has, since the inception of the concept of ‘conservation’, been addressed in terms of financial cost and economic liabilities.64 Beyond reducing life to forms to capital, currencies and financial instruments, the dominant neoliberal political economy of conservation imposes a homogenising, Western secular worldview on a planetary phenomenon. Yet the **enormity, complexity, and scale** of mass extinction is so huge that humans need to **draw on every possible resource in order to find ways of responding**. This means that they need to mobilise multiple worldviews and lifeways – including those emerging from indigenous and marginalised cosmologies. Above all, it is crucial and urgent to realise that extinction is a **matter of global ethics**. It is not simply an issue of management or security, or even of particular visions of the good life. Instead, it is about staking a claim as to the goodness of life itself. If it does not fit within the existing parameters of global ethics, then it is these boundaries that need to change.

9. An Earth-worldly politics. Humans are worldly – that is, we are fundamentally worldforming and embedded in multiple worlds that traverse the Earth. However, the Earth is not ‘our’ world, as the grand theories of IR, and some accounts of the Anthropocene have it – an object and possession to be appropriated, circumnavigated, instrumentalised and englobed.65 Rather, it is a complex of worlds that we share, co-constitute, create, destroy and inhabit with countless other life forms and beings.

The formation of the Anthropocene reflects a particular type of worlding, one in which the Earth is treated as raw material for the creation of a world tailored to human needs. Heidegger famously framed ‘earth’ and ‘world’ as two countervailing, conflicting forces that constrain and shape one another. We contend that existing political, economic and social conditions have pushed human worlding so far to one extreme that it has become almost entirely detached from the conditions of the Earth. Planet Politics calls, instead, for a mode of worlding that is responsive to, and grounded in, the Earth. One of these ways of being Earth-worldly is to embrace the condition of being entangled. We can interpret this term in the way that Heidegger66 did, as the condition of being mired in everyday human concerns, worries, and anxiety, to prolong existence. But, in contrast, we can and should reframe it as authors like Karen Barad67 and Donna Haraway68 have done. To them and many others, ‘entanglement’ is a radical, indeed fundamental condition of being-with, or, as Jean-Luc Nancy puts it, ‘being singular plural’.69 This means that no being is truly autonomous or separate, whether at the scale of international politics or of quantum physics. World itself is singular plural: what humans tend to refer to as ‘the’ world is actually a multiplicity of worlds at various scales that intersect, overlap, conflict, emerge as they surge across the Earth. World emerges from the poetics of existence, the collision of energy and matter, the tumult of agencies, the fusion and diffusion of bonds.

Worlds erupt from, and consist in, the intersection of **diverse forms of being** – material and intangible, organic and inorganic, ‘living’ and ‘nonliving’. Because of the tumultuousness of the Earth with which they are entangled, ‘**worlds’ are not static, rigid or permanent. They are permeable and fluid**. They can be **created**, **modified** – and, of course, destroyed. Concepts of violence, harm and (in)security that focus only on humans ignore at their peril the destruction and severance of worlds,70 **which undermines the conditions of plurality that enables life on Earth to thrive.**

4]

#### IR nuclear war gaming key to good predictions and effective policy-making

Han 10 (Dong-ho Han, Ph.D. Candidate in Political Science at the University of Nebraska-Lincoln, January 26,, “Scenario Construction and Implications for IR Research: Connecting Theory to a Real World of Policy Making”, <http://www.allacademic.com/one/isa/isa10/index.php?cmd=Download+Document&key=unpublished_manuscript&file_index=1&pop_up=true&no_click_key=true&attachment_style=attachment&PHPSESSID=3e890fb59257a0ca9bad2e2327d8a24f>)

Another example of the use of scenario analysis by defense planners can be found in a series of papers by the Rand Corporation that deal with ongoing national security issues and develop national security policies for the United States government. A recent article by Brian Jackson and David Frelinger entitled “Emerging Threats and Security Planning,” one of a series, deals with issues such as the security threats the U.S. government faces now and suggests **how to discern “true” threats from “false” threats**.57 Coping with a variety of emerging threats means not just focusing on traditional and conventional ways of thinking but also concentrating on unconventional and unusual modes of reasoning, often based on fanciful thinking that scenario planning most seeks to inspire. Again, a series of papers at the Rand Corporation have dealt with diverse national security issues and tried to devise various national security policies for the U.S. government on the basis of scenario thinking and analysis. One of the early efforts in this domain could be found in a work on **how nuclear war might start** from the perspective of the early twenty-first century.58 In these papers various scenarios have been unfolded ranging from the possibility of nuclear warfare to emerging threats and new technological innovations in the military and industrial domains. The diverse usages of scenarios in government think tanks like Rand suggest that scenarios could have potential to be used for not only articulating alternative possibilities in a certain issue area but also applying various thoughts of different outcomes into a real world of policy making. In a word, **scenario-based planning could make a difference in** **such diverse areas as business, military, economics, and politics.** Common and effective usage of scenario planning in other fields such as business, military, and even education strategic planning, strengthened by **scenario-oriented methodological approaches**, has **considerable implications** for the development of the field of IR in terms of the possible **connection of theory and policy**. If IR scholars could derive more practical insights from these fields of studies, their

## XTs