# 1NC

## Fem IR

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

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

#### Framing space as a new province for “mankind” allows inequality to prevail – the aff using space as a scapegoat for existing problems creates a new world that reproduces structural imbalances and gendered dynamics in the formation of space law.

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(Cassandra Steer, Mission Specialist with the ANU Institute of Space (InSpace), and a Senior Lecturer at the ANU College of Law specialising in space law, space security and international law; (07-27-2020) “’The Province of all Humankind’ – A Feminist Analysis of Space Law”; https://papers.ssrn.com/sol3/papers.cfm?abstract\_id=3670381)//ckd

3. Law and Power in Space The unequal power dynamics of international law are made apparent through the critical lens provided by feminist and TWAIL approaches to international law. But even through slightly less critical lenses, many theories of international law-making will recognize that these processes respond to the demands of international relations at a given point in time, and to the shifts in power dynamics, as different issues or values come to the forefront (Boyle & Chinkin, 2007, p. 1; D’Aspremont, 2010). The assertions of objectivity and neutrality made by the traditional doctrine of sources are therefore laid bare in all sub-branches of international law, including space law. I have argued elsewhere that space law and space politics are determined by the same big players who dominate terrestrial geopolitics: in simple terms, the U.S. first, the EU second, with a counterweight from China and Russia (Steer, 2019, p. 756). As with any other area of international law and international relations, these powerful actors determine how issues are framed and what legal structures are (or are not) put in place. For example, in the year that the OST came into effect, Austria, Iran and Egypt proposed to the UN the establishment of a global space organisation, that could mimic the International Atomic Energy Agency, to monitor space activity and promote the spread of space technology to less-developed countries, in line with the notion that space should be for the benefit and in the interests of all (Moltz, 2014, p. 44). But because this was not in the interests of either of the super-powers, who had a monopoly over space and its governance and who were consumed with their race to the Moon, it did not gain any support from them. Another example is the functioning of the UN Committee on Peaceful Uses of Outer Space (COPUOS), the body under which all five core space treaties were successfully and rapidly negotiated during the Cold War. For many years now, COPUOS has been deadlocked on seeking multilateral solutions to current issues in space, such as the rising concern for weaponization, or access to and sale of natural resources in space. Part of the problem is that it is bound to make decisions by consensus – a process which was intended to ensure equality of all votes among nations, regardless of their relative power. But this only made sense at a time when there were fewer members, and a narrower range of concerns about activities in space, in the mid-twentieth century at the beginning of the space race (Lyall & Larsen, 2018, pp. 16–17). Over time, with more members, it has become more difficult to come to consensus on any issues, and even the adoption of the non-binding Guidelines for the Long-Term Sustainability of Outer Space Activities took over a decade to agree upon (Working Group on the Long-term Sustainability of Outer Space Activities, 2019; Martinez, 2018). Often commentators will point to the fact that there have been no new space treaties since 1979, as evidence that there is no international appetite for new treaties. However as I have previously argued, this represents only the view of certain influential players, namely the U.S. and the allies which are tethered to it, because they are dependent upon it for national security or economic reasons: countries like Australia, Canada, much of the EU and the U.K. (Steer, 2019, p. 756). When the U.S. takes a position, tethered allies will follow suit. Issues where the U.S. position has thoroughly dominated include the rejection of a proposed Treaty for the Prevention of the Weaponization of Outer Space (PPWT), and resolutions before the UN General Assembly on the Prevention of an Arms Race in Outer Space (PAROS). China and Russia have co-sponsored draft PPWT texts before the Conference on Disarmament, but the U.S. has consistently rejected them, due largely to the fact that these proposals come from its greatest opponents. In 2018, the U.S. was the only country to vote no to all four resolutions proposed at the UN General Assembly on PAROS (Report of the First Committee, 2018; Meyer, 2018), and in 2019, the U.S. opposed discussions in a dedicated UN Group of Government Experts on PAROS, where there was general agreement about the need for an arms control treaty for space (Patriota, 2019, p. 757; Steer, 2019). The U.S. position also clashed with the position of the EU on the tail end of the negotiating process working towards a non-binding International Code of Conduct for Outer Space Activities (ICoC) in 2015 (Proposal for an International Space Code of Conduct, Draft, 2014). Despite having supported the initiative at its inception in 2008, the U.S. was unable to force the inclusion of a provision on the right to use force in self-defence, and as a result decided to jettison it’s support (Johnson, 2014; Meyer, 2015). The ICoC also faced pushback from the Global South, but for different reasons. The ICoC had originated as an EU initiative, and in its earliest iterations many developing countries objected to the Euro-centric procedures and selection of issues. To its credit, the EU responded to these critiques with a series of open-ended consultations in various regions of the world, before inviting all members of the UN to attend an international negotiation process in 2015. However, the concerns about process had not been addressed to the satisfaction of Brazil, Russia, India, China and South Africa (BRICS), who stated jointly that “the elaboration of such an instrument should be held in the format of inclusive and consensus-based multilateral negotiations within the framework of the UN” (BRICS Joint Statement, 2015). These countries took the opportunity to assert some power over a process that is typically represented the power imbalance of international law and international relations, and as a result the EU process – and ultimately the ICoC – failed. These examples demonstrate the importance of taking into account the current realities of international relations and international law when seeking to govern space in the twenty-first century. As feminist critiques have shown, law cannot be separated from the political, cultural, economic, and historical context in which it plays out, and in which the nations and people exist who are affected by the law. Already in 1968, the Secretary of the UN at the time, U Thant, warned “that the space age is increasing the gap between the developed and developing areas of the world at an alarming rate” (Note by the Secretary General Report of the Committee on the Peaceful Uses of Outer Space, 1968, p. 10) It is clear from the processes outlined here that certain countries are unwilling to let the power imbalance remain the status quo. This should be applauded, because that status quo keeps many nations out of the space race altogether, and limits the benefits they receive from human activities in space, in spite of the promise of the OST that space shall be the province of all. It is clear, therefore, that the pretenses of international law as being neutral, objective, and universal are false, and that space law is as much an expression of power dynamics as is any other area of law. There is no equality between countries, despite the notion of formal equality as a value underpinning international law, and the status quo is determined by interests of a small handful of countries which have managed to institutionalize the power they held at the close of the Second World War. There is no equal access to space, nor is there distribution of the benefits derived from space, despite this being a promise of the OST. Space is far from being the “province of all mankind”. Indeed, space is even further from being the province of all humankind. Access to, benefits from, and governance over space is the province of an elite few, and within those few there is a gender imbalance which mirrors the geographical imbalance. At the time that the OST was drafted, not only were there no women at the negotiating table, but under the U.S. programme, women were excluded from being able to become astronauts. To become an astronaut, one had to be a military test pilot, a profession from which women were banned (Koren, 2017). There was a strong lobbying campaign, led by highly qualified women pilots, to convince NASA and the White House to allow women to become astronauts (Klein, 2017), and a clandestine “Women in Space” program was bankrolled by the pioneering pilot Jackie Cochran Electronic copy available at: https://ssrn.com/abstract=3670381 DRAFT July 2020 – Do Not Cite 24 (Weitekamp, 2004). In this program, a number of women were selected by Dr. Randolph Lovelace, a contractor to NASA who led the physical tests and training for astronauts, to undergo the exact same training as the men, because he suspected women would be better candidates for space travel, due to our generally lighter weights and lower need for oxygen. A higher percentage of women passed the tests than men, and many of the women performed better than the male trainee astronauts. However, despite the test results, the deeply engrained sexism of the time prevailed. Apparently Lovelace’s motives may have been focused on the need for women as secretaries and assistants in future long-term space habitations (Weitekamp, 2004). When “Women in Space” candidate Jerrie Cobb testified before a congressional subcommittee in 1962, she stated “we seek, only, a place in our nation’s space future without discrimination” (Klein, 2017), but astronaut John Glenn testified that creating a programme to train women astronauts would compromise the race to land on the Moon before the Soviets. Moreover, he argued “the men go off and fight the wars and fly the airplanes and come back and help design and build and test them. The fact that women are not in this field is a fact of our social order.” (Weitekamp, 2004; Klein, 2017). Ultimately the lobbying campaign failed, and the Women in Space program was shut down because NASA did not sponsor it. One year later, the first woman in space was a Soviet woman, Valentina Tereshkova, in March 1963. The Soviets had beaten the Americans in yet another milestone in the space race, ostensibly breaking the glass ceiling for women’s participation. However, she was not to be followed by another woman until 1982, when Svetlana Savitskaya flew on a mission to the Soviet Salyut Space Station. Upon her arrival, Savitskaya was handed an apron by her crewmates, who “joked” that she should get to work in the kitchen. Despite this rude welcome, she went on to perform a series of highly skilled engineering tasks for which she had been trained, including testing a tool for welding in space, and becoming the first woman to undertake a spacewalk (Lewis, 2018). Women are still vastly underrepresented in all STEM careers, and in the entire space sector generally, as well as at all international negotiating tables and in national law-making. It matters, then, a great deal, who has the power to determine the laws and norms applicable to human activity in space. If we are at all serious about the promises of the OST, then this power balance must shift. We must take into account the interests of many more players than just the most geopolitcally influential as we seek new space law and governance solutions to today’s and tomorrow’s space activities. It starts with making explicit that space is not at all “the province of all mankind”, let alone the province of all humanity.

#### Their seemingly critical approach to climate justice is steeped in Western modernity’s narrative of “developing nations” as inherently vulnerable and ‘primitive’-

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(Nancy, Department of Philosophy, Penn State University, Chapter 2, Gendering Climate Knowledge for Justice: Catalyzing a New Research Agenda, M. Alston and K. Whittenbury (eds.), Research, Action and Policy: Addressing 17 the Gendered Impacts of Climate Change, DOI 10.1007/978-94-007-5518-5 2, JKS)

In her study of the intersections between feminist and postcolonial science studies, Science from Below, Sandra Harding focuses her analysis on the knowledge projects and practices of Western modernity, arguing that modernity “remains haunted by anxieties about the feminine and the primitive, both of which are associated with the traditional” (2008, 1). She reminds us that any account of the development and expansion of Western science, as well as of Western society, must understand their deep connection to empires and colonization. The “development and modernization of the West were materially as well as ideologically built on the exploitation, de- development, and “constructed traditionalism” of the societies which European expansion encountered, from 1492 through the events in today’s newspapers” (2008, 68). Furthermore, Harding details how Western scientific and technological¶ development have gone hand-in-hand with widespread environmental destruction, the de-skilling and consequent alienation of labor, a steadily increasing gap between the resources available to rich and poor both locally and globally, and the continuing resources these provide for sexist and racist projects.¶ Harding claims that feminist and postcolonialist theorizing provide three impor- tant resources for understanding the complex interconnections between power and knowledge that are essential to practices of science that are more just. First, they reveal the processes and institutions that led to indigenous knowledge practices, other than those of Western science,2 being ignored or suppressed. Second, through careful investigation of the co-constitution of gender with class, race, and other social hierarchies these forms of theorizing serve as an important reminder of the various others whose participation is essential to the emergence of science as a truly democratic practice. Third, they focus attention on women as active agents in the processes of scientific and technological change.¶ While these insights provide a powerful lens through which to render trans- parent the workings of power/knowledge-ignorance couplings in the study of the geophysical basis of climate change, my examples in this section turn instead on the social science narratives, particularly those dealing with impacts, adaptation, and vulnerability (the domain of Working Group II of the IPCC). Here, albeit briefly, I would like to add to our research agenda and provide an example of the ways in which the narratives surrounding global climate change are informed by and reinforce the framework Harding labeled “Western modernity.” What Harding’s work has so clearly revealed is that the interests that structure knowledge and determine what is known, as well as what is ignored, are those of the more powerful nations and those that matter to powerful organizations and corporations. She documents how science “from above” enacts a linked set of dualisms in which the first term is privileged. What I add to this insight is that this same dualism structures the dominant frameworks for thinking about global climate change as well (Fig. 2.2).¶ My focus in this section concerns how these same dualisms circulate in climate discourses to link agency with the “Global North” and vulnerability with the “Global South.3” And just as the dualisms are gender coded, I will argue that the discourses themselves carry gendered biases. Not only is the “Global South” viewed as vulnerable, but gendered tropes of this same dualism work to render women in the “Global South” as victims. The “Global North” is depicted as having agency and assigned responsibility both for causing the problem of climate change, but also for responding to it with technological and policy solutions.¶ This dual trope of the “Global South” as victims of climate change in need of the resources of the “Global North” to survive is prevalent in climate science literature. Let me be clear, a justice perspective does require acknowledging the differential impacts of climate change on regions, as well as recognizing that some groups have more resources for adaptation than others. While not intending to deny either of these points, the recurring trope of conceptualizing the “Global South” as vulnerable and less able to act in the face of climate impacts, repeats and is informed by centuries of discourses regarding these countries as lessor—less developed, less modern, less technologically advanced, less stable, less capable of self-governance. The problem is that while the rhetoric reflects certain truths, it plays into and perpetuates systematic prejudices about these countries embedded in the ontology of Western modernity.¶ To give just one example, in the course of one page, Stephen H. Schneider and Janica Lane in their essay, “Dangers and Thresholds in Climate Change,” mention the vulnerability of what they refer to as “the poorer, warmer nations of the world” nine times. Just a few illustrative quotes reveal the persistence of the above dualisms: developing nations “will experience more and more severe climate change impacts;” “the developing nations will most likely experience predominately detrimental effects;” “there is an imbalance between rich and poor nations’ ability to cope with climate impacts;” “less developed countries tend to have lower adaptive capacities, as they are often limited by financial, technological, and governmental constraints;” “the uneven distribution of climate change impacts leaves the hotter, poorer nations—the countries that have less adaptive capacity—more vulnerable and more in need of adaptation” (2006, p. 28). Schneider’s and Lane’s aim is to argue that justice concerns must take these differences into account. Despite their good intentions, the same discourse that Harding warns us about haunts this text. The “less developed” are framed as less modern, less capable, less technologically advanced. This same rhetorical repetition frames women in these countries. We are told that:¶ • Women constitute the largest percentage of the world’s poorest people.¶ • Because of the “feminization of poverty,” women are most likely to experience the greatest negative impacts of shifting weather patterns, resulting in further¶ deprivations.¶ • Gender roles render women more vulnerable.¶ • Women have little voice in climate policy debates.¶ What is particularly worrisome is that these same tropes of lack and passivity inflect even feminist discourses. While calling for greater attention to the impact of climate change on women and for the greater participation of women in climate policy, the same rhetorical linkages between women-poverty-vulnerability circulate in feminist discourses.¶ An early essay on gender and climate change by Fatima Denton (2002) serves as illustration. We find multiple repetitions of the above themes throughout a paper that is calling for mainstreaming gender issues into debates on climate change and sustainable development, and the inclusion of women in decision-making. Consider the following quotes:¶ On the link between women and poverty:¶ Climate change is likely to accentuate the gaps between the world’s rich and poor. It is widely accepted that women in developing countries constitute one of the poorest and most disadvantaged groups in society (p. 11).¶ Women are already paying huge prices for globalisation, economic depression, and environmental degradation. Climate change is likely to worsen their already precarious situation, and leave them even more vulnerable (p. 18).¶ On the interaction between poverty and climate harms:¶ women and their livelihoods activities are particularly vulnerable to the risks posed by environmental depletion (p. 11).¶ On the relation between gender roles and women’s vulnerability:¶ poor women are generally on the receiving end of the effects of increasing environmental degradation and depletion of natural resources, because of their involvement in, and reliance on, livelihoods activities which depend directly on the natural environment (p.12).¶ Gender inequalities continue to exist in terms of access to land, control over resources, abil- ity to command and access paid labour, capacity, and strategies for income diversification, as well as time spent on agricultural or forestry-based activities (p. 17).¶ And on the absence of women from climate policy development:¶ Women are patently absent from the climate change decision-making process (p. 11).¶ Climate negotiations could be seen as a parody of an unequal world economy, in which men, and the bigger nations, get to define the basis on which they participate and contribute to the reduction of growing environmental problems, while women, and smaller and poorer countries, look in from the outside, with virtually no power to change or influence the scope of the discussions (p. 10). Power dynamics characterise the relationships between richer and poorer nations, and these have gendered implications. If poorer nations are finding it difficult to get richer nations to meet their obligations and work towards climate mitigation, poor women have an even bigger problem in promoting their agenda. If smaller and poorer nations have difficulties in mounting the necessary infrastructure to take advantage of CDM projects, poorer women have even fewer means and less scope to diversify their livelihood and look after their families (p. 17).¶ My point is that even in the context of arguing for gender differentiated impacts and solutions that will adequately address them, even feminist attention to gender and climate change can get caught in the logic of dualisms and aggregate women, or more specifically, women from the less developed nations, and the poor, and depict them, all of them, as more vulnerable.¶ While selecting only one text to reveal the pattern of this discourse to illustrate the women-poverty-vulnerability linkages for women in developing countries, these associations have been and continue to be prevalent in the literature (cf. Cannon 2002; Dankelman 2002; Demetriades and Esplen 2008; Hannan 2009; Nelson et al. 2002; Terry 2009). And as noted by Arora-Jonsson (2011) the trope of the North as agential has resulted in a corresponding image of Northern women as more environmentally virtuous, namely, “more sensitive to risk, more prepared for behavioural change and more likely to support drastic policies and measures on climate change.”¶ Once again, we see the trope of Western modernity so clearly depicted by Harding (2008) at work in these texts. The strength of the linkages between the “Global South” and the “primitive” or, as we say, “less developed,” and the related women-poverty-vulnerability linkage have such a strong hold on our conceptual framework that we uncritically accept statements such as “70% of all poor people are women,” as well as repeat and reinforce the message through labels like “the feminization of poverty.” Sherilyn MacGregor, to cite just one example, in an important analysis of the need for research on “the ways in which gendered discourses, roles and identities shape the political and material aspects of climate change,” unwittingly participates in this trope of repetition:¶ There is widespread agreement among climate change analysts and policy makers that the more socially and economically marginalized people are, the more vulnerable they are to the effects of global warming. The poor will be hurt the most. However, few other than feminists put the global feminization of poverty into the frame. In his analysis, for example, Giddens (2009) refers to ‘the poor’ as a homogenous group, with no attention to the fact that women are more likely to be poor, and to be responsible for the care of poor children, than men. This is a problematic blindness. Approximately 70 per cent of the world’s poor are women; rural women in developing countries are among the most disadvantaged groups on the planet. They are therefore unlikely to have the necessary resources to cope with the changes brought by climate change, and very likely to suffer a worsening of their everyday conditions (2010, 130).

#### Environmental management is underpinned by patriarchal relations to nature. The very concept of environmental extinction is intrinsic to gendered conceptions of humanity and conservation.

Mitchell 15

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Extinction and mass extinction are complex phenomena that entangle multiple dimensions of life, ethics, politics, economics and art. But how do they relate to gender and sexuality? A few months ago, I was asked to write a chapter for a textbook on gender and nature that would address this question. This was a welcome and stimulating challenge, which gave me the opportunity to dig more deeply into the crossings between feminism, gender studies, queer theory and studies of extinction – fields which are connected in multiple, sometimes not-so-obvious ways. In many ways, this is a project of bridging, extending and teasing out resonances between literatures. Decades of eco-feminisms, feminist environmentalisms and environmental feminisms have produced rich discussions on the relationships between gender sexuality and the ecosphere. However, with the notable exception of Claire Colebrook, very few scholars of gender and queer theory have engaged directly with extinction. The concept does appear in eco-feminist works, but it is almost always invoked rhetorically, as an opaque worst case scenario used to underscore the enormity of destructive power structures and relations. In these discourses (like many others), the concept of extinction is something of a black box, and it most often treated as a non sequitur: it is assumed to mean “the death of every member of a species”, and there is rarely discussion of its many other dimensions, relations and implications. At the same time, emerging work in the humanities on extinction and mass extinction holds great potential for exploring the links between gender, sexuality, survival and extinction that can be nurtured further. Reflecting on the connections between these fields is not only a promising way of theorising extinction in a more robust and plural way, but it can also contribute to feminist, gender and queer scholarship in rich ways. To this end, I’ve tried to tease out some of the most potent intersections between these fields, bringing them into direct confrontation with extinction, and with existing modes of response to it. Here are a few of the nodes that I think have great potential for further development. Feminist critiques of neo-liberal conservation One of the most integral arguments within ecological feminisms is that patriarchal, extractive logics underpin the destruction of ‘nature’. Carolyn Merchant popularized this argument by tracing the roots of the current ecological crisis to the scientific revolution and the rise of capitalism in the early modern period of European history. For Merchant, the transition from a belief system in which the Earth was understood to be a living ‘mother’ to one in which it was refigured as a passive female body removed constraints on destructive activity. From this perspective, the logics and resulting cultures of extractive patriarchy underpin destructive relations between humans and the Earth. Subsequently, authors such as Kay Warren and Val Plumwood have argued that the converse is also true. That is, that the separation of ‘man’ and ‘Earth’ entrenches relations of superiority, subordination and instrumentality that have helped to sustain oppressive gender categories – along with other exclusive categories such as race and species (see the work of Greta Gaard on this subject). These arguments provide an important basis for critiquing dominant political framings of and responses to extinction and prospect of mass extinction, in particular neoliberal logics of conservation. They suggest that the androcentric, extractive logics that gave rise to early capitalism undergird human activities that may lead to extinction. Yet, as Sian Sullivan’s excellent work attests to, the very same logics of accumulation, extraction and financialization are central to contemporary conservation efforts. In fact, since the inception of the term ‘biodiversity’ in the late 1980s, conservationists have sought to incentivize the protection of diverse life forms by emphasizing their resource value. In these discourses, even non-monetary forms of value – for instance, spiritual, scientific or aesthetic value – are treated as dwindling resources. Conservation, in this context, is framed as a means of accumulating, securing and managing capital in the hopes of a future profit. This logic has become particularly pronounced in discourses of ‘ecosystems services’, which attempt to re-evaluate ecosystems in terms of the ‘free’ services they provide to economies, and incentivise forms of development based on leveraging this ‘capital’. Ecological feminist arguments focus attention on the cultures, norms and logics that underpin destructive human activity. They also historicize the convergence of the rise of capitalist economic organization, modern patriarchy, the separation of ‘humans’ and ‘nature’ and cultural frameworks that produce the destruction of ecosystems. This line of analysis helps to identify how neoliberal forms of conservation that understand ‘biodiversity’ in terms of capital and resources, in the nature of creative/destructive flows of capital, propel the exact same forces they resist. As a result, extinction is becoming an important propellor of neo-liberal capitalism. So, existing discourses and practices around extinction and the ‘management’ of biodiversity need to be understood as being enfolded in the processes of capitalism, sometimes quite literally. Emerging financial instruments such as ‘biodiversity banking’ and biodiversity derivatives epitomize this framing, but it is also reflected in the broader language and political economy of conservation. By highlighting the historicity, continuities and transformations of the central logics of capitalism and its embeddedness in relations of hierarchy, feminist critiques have an important role to play in re-thinking dominant frames of extinction and the commodification of biodiversity.

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

Youngs 04

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

This discussion will demonstrate, in the ways outlined above, the depth and range of feminist perspectives on power—a prime concern of International Relations and indeed of the whole study of politics. It will illustrate the varied ways in which scholars using these perspectives study power in relation to gender, a nexus largely disregarded in mainstream approaches. From feminist positions, this lacuna marks out mainstream analyses as trapped in a narrow and superficial ontological and epistemological framework. A major part of the problem is the way in which the mainstream takes the appearance of a pre- dominantly male-constructed reality as a given, and thus as the beginning and end of investigation and knowledge-building. Feminism requires an ontological revisionism: a recognition that it is necessary to go behind the appearance and examine how differentiated and gendered power constructs the social relations that form that reality. ¶ While it may be empirically accurate to observe that historically and contemporaneously men have dominated the realms of international politics and ¶ economics, feminists argue that a full understanding of the nature of those realms must include understanding the intricate patterns of (gendered) inequalities that shape them. Mainstream International Relations, in accepting that because these realms appear to be predominantly man-made, there is no reason to ask how or why that is the case, stop short of taking account of gender. As long as those who adhere to this position continue to accept the sufficiency of the appearances and probe no further, then the ontological and epistemological limitations will continue to be reproduced. ¶ Early work in feminist International Relations in the 1980s had to address this problem directly by peeling back the masculinist surface of world politics to reveal its more complex gendered (and racialized) dynamics. Key scholars such as Cynthia Enloe focused on core International Relations issues of war, militarism and security, highlighting the dependence of these concepts on gender structures—e.g. dominant forms of the masculine (warrior) subject as protector/conqueror/exploiter of the feminine/feminized object/other—and thus the fundamental importance of subjecting them to gender analysis. In a series of works, including the early Bananas, beaches and bases: making feminist sense of international politics (1989), Enloe has addressed different aspects of the most overtly masculine realms of international relations, conflict and defence, to reveal their deeper gendered realities.3 This body of work has launched a powerful critique of the taboo that made women and gender most invisible, in theory and practice, where masculinity had its most extreme, defining (and violent) expression. Enloe’s research has provided one of the most comprehensive bodies of evidence for the ontological revisionism required of mainstream International Relations, especially in relation to its core concerns. ¶ When Enloe claimed that ‘gender makes the world go round’,4 she was in fact turning the abstract logic of malestream International Relations inside out. This abstract logic saw little need to take theoretical and analytical account of gender as a social force because in practical terms only one gender, the male, appeared to define International Relations. Ann Tickner has recently offered the reminder that this situation persists: ‘During the 1990s, women were admitted to most combat positions in the U.S. military, and the U.S. president appointed ¶ the first female secretary of state, but occupations in foreign and military policy- making in most states remain overwhelmingly male, and usually elite male.’5 ¶ Nearly a decade earlier, in her groundbreaking work Gender in International Relations: feminist perspectives on achieving global security,6 she had asked the kinds of questions that were foundational to early feminist International Relations: ‘Why is the subject matter of my discipline so distant from women’s lived experiences? Why have women been conspicuous only by their absence in the worlds of diplomacy and military and foreign policy-making?’ Tickner, like Enloe, has interrogated core issues in mainstream International Relations, such as security and peace, providing feminist bases for gendered understanding of issues that have defined it. Her reflection on what has happened since Gender in International Relations was published indicates the prominence of tensions between theory and practice. ‘We may have provided some answers to my questions as to why IR and foreign policymaking remain male-dominated; but breaking down the unequal gender hierarchies that perpetuate these androcentric biases remains a challenge.’7 ¶ The persistence of the overriding maleness of international relations in practice is part of the reason for the continued resistance and lack of responsiveness to the analytical relevance feminist International Relations claims. In other words, it is to some extent not surprising that feminist International Relations stands largely outside mainstream International Relations, because the concerns of the former, gender and women, continue to appear to be subsidiary to high politics and diplomacy. One has only to recall the limited attention to gender and women in the recent Afghanistan and Iraq crises to illustrate this point.8 So how have feminists tackled this problem? Necessarily, but problematically, by calling for a deeper level of ontological revisionism. I say problematically because, bearing in mind the limited success of the first kind discussed above, it can be anticipated that this deeper kind is likely to be even more challeng- ing for those in the mainstream camp. ¶ The second level of ontological revisionism required relates to critical understanding of why the appearance of international relations as predominantly a sphere of male influence and action continues to seem unproblematic from mainstream perspectives. This entails investigating masculinity itself: the nature of its subject position—including as reflected in the collective realm of politics— and the frameworks and hierarchies that structure its social relations, not only in relation to women but also in relation to men configured as (feminized) ‘others’ ¶ because of racial, colonial and other factors, including sexuality. Marysia Zalewski and Jane Parpart directly captured such an approach as ‘the “man” question in international relations’.9 I would like to suggest that for those sceptical about feminist International Relations, Zalewski’s introductory chapter, ‘From the “woman” question to the “man” question in International Relations’, offers an impressively transparent way in to its substantive terrain.10 Reflecting critically on the editors’ learning process in preparing the volume and working with its contributors, both men and women, Zalewski discusses the various modifications through which the title of the work had moved. These included at different stages the terms ‘women’, ‘masculinity’ and ‘feminism’, finally ending with ‘the “man” question’—signalling once again, I suggest, tensions between theory and practice, the difficulty of escaping the concrete dominance of the male subject position in the realm of international relations. ¶ The project’s starting point revealed a faith in the modernist commitment to the political importance of bringing women into the position of subjecthood. We implicitly accepted that women’s subjecthood could be exposed and revealed in the study and practice of international relations, hoping that this would also reveal the nature of male dominance and power. Posing the ‘man’ question instead reflects our diminishing belief that the exclusion of women can be remedied by converting them into subjects.11 ¶ Adding women appeared to have failed to ‘destabilize’ the field; so perhaps critically addressing its prime subject ‘man’ head-on could help to do so. ‘This leads us to ask questions about the roles of masculinity in the conduct of international relations and to question the accepted naturalness of the abundance of men in the theory and practice of international relations’ (emphasis added).12 ¶ The deeper level of ontological revisionism called for by feminist Inter- national Relations in this regard is as follows. Not only does it press beyond the appearance of international relations as a predominantly masculine terrain by including women in its analysis, it goes further to question the predominant masculinity itself and the accepted naturalness of its power and influence in collective (most significantly state) and individual forms.

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

Bacchi 16

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

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

## Case

### T/L

#### The state is not innocent — *any* space exploration perpetuates environmental and economic injustice, and launches allow governments to create capitalist areas of waste

Klinger 19

Julie Michelle Klinger, PhD (Assistant Professor of Geography at University of Delaware); “Environmental Geopolitics and Outer Space”, *Geopolitics Vol. 3*; March 20, 2019; <https://doi.org/10.1080/14650045.2019.1590340>; HW-EMJ

Launches and Their Infrastructures Reaching outer space requires Earthly infrastructure, which means that space launches have concrete footprints that change according to developments in launch technologies. The placement of outer space related infrastructure on Earth is a question of environmental (in)justice. Which sites are chosen, who is expropriated, and which environments are impacted is subject to strategic geopolitical calculations, which, more often than not, employ classical geopolitical reasoning (Hickman and Dolman 2002; Ingold 2006; Meira Filho, Guimarães Fortes, and Barcelos 2014; NDRI 2006). Launch sites are tightly controlled to reduce the risk of interference or failure, therefore situating launch sites in remote areas is often explained in terms of safety and security (Zapata and Murray 2008). No doubt this is important: rockets are composed of many tonnes of material and combustive fuel, so they must be launched in places where damage from routine as well as potentially catastrophic explosions can be contained. For humans to reach “the final frontier,” they must first find a frontier space on Earth that can be made into an empty space in which controlled explosions can be routine. Frontiers are seldom as empty as those aiming to conquer them would claim. Where they are not populated by people, they are filled with other sorts of meanings and life forms (Klinger 2017; Tsing 2005). Potential launch sites and testing ranges deemed by government authorities to be simultaneously remote, safe, and suitable to contain the risks of rocket launch must first be made empty of people, with prior land use regimes or territorial claims pushed beyond designated buffer zones (Gorman 2007; Mitchell 2017). Hence the placement of space infrastructure follows colonial geographies of extraction, sacrifice, and risk (Mitchell 2017; Redfield 2001). As Gorman (2007) put it: “because of their distance from the metropole, these places lend themselves to hosting prisons, detention camps, military installations, nuclear weapons, and nuclear waste. All of these establishments, including rocket ranges, have inspired reactions of protest.” These so-called ‘peripheral’ spaces are nevertheless central to their inhabitants and their neighbors, who question the logic of extraglobal conquest in the face of unresolved Earthly injustices. Consider, for example, the case of the launch site in Alcântara, Brazil, which has been well documented by Araújo and Filho (2006) and Mitchell (2017). Through a close examination of local, national, and international politics, these authors document how the government’s racialized approach to the subsistence communities displaced by space infrastructure deepened structural inequalities. Grassroots opposition to the launch site grew not out of an a priori ideological opposition of poor people to national progress in outer space, as some officials alleged, but rather resulted from the failure to account for the food insecurity generated by state resettlement projects. The resettlement schemes were themselves misinformed by impoverished notions of local livelihoods. Local claims against the deprivations caused by statesponsored space practices have deepened schisms between the military and civilian space programs at the federal government level. Through the lens of classical geopolitics, these structural inequalities scarcely register, with the result that the ‘crawling’ progress of Brazil’s space program is pathologized as poor management practices symptomatic of an inadequately implemented national development vision (Amaral 2010). Critical geopolitics helps deconstruct the nationalist performativity of such endeavors by considering the political and economic value placed on the spectacle of spaceflight (Boczkowska 2017; Macdonald 2008, 2010; Sage 2016). Feminist geopolitics draws our attention to the racialized and gendered dispossession advanced by the state, through the construction of space infrastructure and exercised through access to land. The fact that environmental and public health impacts were only considered by the authorities after years of mobilization by Black social movements, religious communities, and scholars highlights the ways in which inattention to the local in the pursuit of space power perpetuates environmental injustice, which in turn interrupts national plans for space progress. Rocket launches affect local and global environments through the construction of infrastructure, the exposure of local environments to toxic residues, and the dispersal of pollutants in land, air, and sea. Rockets are the only source of direct anthropogenic emissions sources in the stratosphere. Ozone-depleting substances (ODS) such as nitrous oxide, hydrogen chlorine, and aluminum oxide are emitted by rockets, and can destroy 105 ozone molecules before degrading (Voigt et al. 2013). The ozone layer prevents cancer and cataract-causing ultraviolet-b waves from reaching the Earth. As of 2013, rocket launches accounted for less than 1% of ODS emissions. As other ODS are phased out under the Montreal Protocol and the frequency of lower cost space launches increases, the proportion and quantity is likely to increase (Durrieu and Nelson 2013; Ross et al. 2009). Although affluent economies in the northern hemisphere are responsible for most ODS emissions (Polvani 2011; Rousseaux et al. 1999), the geography of exposure disproportionately affects an overall higher population in remote regions and in the southern hemisphere (Norval et al. 2011; Robinson and Erickson 2015; Thompson et al. 2011) because ozone depletion is most serious in regions where high altitude stratospheric clouds are most likely to form: above the polar regions and major mountain ranges (Carslaw et al. 1998; Perlwitz et al. 2008). This is an example of environmental injustice on a global scale, where the global south bears the environmental burden of actions predominately taken in the global north, rocket launches included. In the process, global power relations are reinscribed through the uneven distribution of harm to peripheral and southern bodies, mediated in this case through the redistribution of gases in the stratosphere that increase exposure to solar radiation. Coming closer to Earth, environmental geopolitics of outer space are manifest in the dispersal of particulate matter into ecosystems surrounding active launch sites. This is more than a strictly local environmental concern, because which spaces are subject to the hazards of launch sites involves careful calculations weighing financial cost, state power, and multifarious territorial interests. With each launch, surrounding areas are showered with toxins, heavy metals, and acids over a distance that varies widely with wind, weather, and precipitation patterns at the moment of lift-off.3 The most researched of these pollutants are hydrogen chloride, aluminum oxide, and various aerosolized heavy metals. Release of these pollutants from rocket launches results in localized regional acid rain (Madsen 1981), plant death, fish kills, and failed seed germination of native plants in launch sites (Marion, Black, and Zedler 1989; Schmalzer et al. 1992). These effects, and research on them, are mostly concentrated within one kilometer of the launch site. But they have been recorded several kilometers away under certain weather conditions (Schmalzer et al. 1998). Recent studies on the concentration of trace elements in wildlife in areas near NASA launch activities in Florida, USA, found that more than half of the adults and juvenile alligators had “greater than toxic levels” of trace elements in their liver (Horai et al. 2014). Both the subject, and the vague statement of findings, highlights the lack of research into the impacts on downstream human and non-human communities. In contrast to the precautions taken to protect workers in buildings adjacent to facilities where these technologies are developed (Bolch et al. 1990; Chrostowski, Gan, and Campbell 2010), much less consideration is given to communities within the dynamic pollutant shadow of rocket launches. In Kazakhstan, Russia, and China, researchers have begun examining the effects of the highly toxic liquid propellant, unsymmetrical dimethylhydrazine 14 J. M. KLINGER (UDMH), which has been in use since the dawn of the space age. It has noted carcinogenic, mutagenic, convulsant, teratogenic, and embryotoxic effects (Carlsen, Kenesova, and Batyrbekova 2007), and it has been found to cause DNA damage and chromosomal aberrations in rodents living near the Baikonur cosmodrome in Kazakhstan (Kolumbayeva et al. 2014). Despite these known hazards, methods to detect UDMH at the trace concentrations at which toxic effects begin to manifest in humans do not yet exist (Kenessov, Bakaikina, and Ormanbekovna 2015), meaning that there is no knowledge of how this circulates in the environment, bioaccumulates up the food chain, or could potentially be sequestered through soil or plant filtration. The lack of technology or methodology to adequately track the dispersal of hazardous pollutants that have been used for decades in the surrounding environment illustrates another aspect of environmental injustice: the preference on the part of political and economic elites to create spaces of waste rather than allocate adequate resources to maintain safe and non-toxic environments.4 The hyper-local politics of basic livelihood security shape long-term access to outer space and space geopolitics at multiple scales. Attending to the local matters is important, not just because it sheds light on broader geopolitical processes, but because failing to do so leaves the substantive matters of human engagement with outer space entirely overlooked, at best. At worst, ignoring local environmental conditions recasts them as places to be “left behind,” casualties in a Darwinian race to the cosmos in which the poor have no place. Attending to the environmental geopolitics of outer space on Earth shows the co-production of Earth and space. Earthly environments and social relations are remade in our evolving relationship with outer space and reconceived alongside evolving deliberations on the prospects for human survival.

#### Public and private companies must work together to overcome blockages that each industry face, only together can the process be expedited

Houser 17 (Kristin Houser is a writer for Futurism , where she covers science and tech. Her written work has appeared in Business Insider, NBC News, and the World Economic Forum’s Agenda, among other publications https://futurism.com/private-companies-not-governments-are-shaping-the-future-of-space-exploration) //HWLND

Private companies may be in the lead, but the finish line for this Space Race isn’t exactly clear. The first iteration was arguably “won” when Neil Armstrong took his first steps on the Moon, so does this sequel end when we establish the first Moon base? When a human walks on Mars? When we leave the solar system? Truthfully, the likelihood of humanity ever calling it a day on space exploration is slim to none. The universe is huge, with galaxy estimates in the trillions, so the goalpost will continue moving back (to bring another sport into the analogy). Rather than focusing on competing in what is ultimately an unwinnable race, private and government-backed space agencies can actually benefit from collaboration thanks to their inherent differences. “The way that SpaceX, Planetary Resources, or Virgin Galactic approaches space exploration is going to be very different from NASA or the Air Force,” explains Lewicki. Private companies aren’t beholden to the same slow processes that often stall government projects, and they can secure or reallocate funding much more swiftly if need be. However, unlike agencies like NASA, they do have shareholders to keep happy and a need to constantly pursue profitability. The two sectors, therefore, have a tremendous opportunity to help one another. Private companies can generate revenue through government contracts —for example, NASA has contracted Boeing to transport astronauts to the International Space Station (ISS), and SpaceX just closed a deal with the U.S. Air Force to launch its secretive space drone. This leaves the government agencies free to pursue the kind of forward-thinking, longer-term research that might not immediately generate revenue, but that can be later streamlined and improved upon in the private sector.

#### Space law will be near impossible to enforce — numerous jurisdictional issues on other planets.

Gohd 19

Chelsea Gohd, senior writer, worked for American Museum of Natural History, Scientific American, Discover Magazine Blog, Astronomy Magazine and Live Science, 8-29-2019, "Who Investigates a Crime in Space?," Space.com, https://www.space.com/who-investigates-space-crime.html //MLT

As human spaceflight advances to Mars or to long-duration lunar settlements, legal issues will be more likely to arise again in space. At that point, the already-murky waters of addressing space crime will become even less clear. It is possible, then, that as we venture out farther into the solar system for longer periods, we will need to further develop regulations and guidelines surrounding criminal jurisdiction in space. For a lunar or Martian colony, criminal jurisdiction would at first "use what we currently have as the baseline," von der Dunk said. So a U.S. astronaut flying to Mars on a U.S. spacecraft would be subject to U.S. jurisdiction. But things would get more complicated as more people came to the moon or Mars and humans began spending more time on these bodies. For example, if a person flies to the moon, "step[s] out of the lunar module, send[s] it back and stay[s] for four years longer on the moon, they are no longer personnel on the spacecraft," von der Dunk said. So, while such an individual would have been considered under U.S. jurisdiction because they flew aboard an U.S. vehicle, would this still apply once they no longer worked or lived on that craft? Additionally, "space law has a peculiar twist, because this jurisdiction applies to space objects, and space objects are seen as something launched by humans into outer space," von der Dunk said. So, if humans manufacture homes out of local material on the moon or Mars, would jurisdiction change because astronauts would no longer be in a habitat or craft from an Earth nation?

#### Belief in apocalyptic space impacts diverts focus away from solutions we need on Earth, voids any progress towards solving the climate crisis and unleashes planetary doom

Williams 10

(Lynda, professor of engineering and physics at Santa Rosa Junior College, “Irrational Dreams of Space Colonization”, Peace Review, a Journal of Social Justice 22:1, Spring 2010, http://www.scientainment.com/lwilliams\_peacereview.pdf)//AS

If we direct our intellectual and technological resources toward space exploration without consideration of the environmental and political consequences, what is left behind in the wake?The hype surrounding space exploration leaves a dangerous vacuum in the collective consciousness of solving the problems on Earth. If we accept the inevitability of Earth’s destruction and its biosphere, we are left looking toward the heavens for our solutions and resolution. Young scientists, rather than working on serious environmental challenges on Earth, dream of Moon or Martian bases to save humanity, fueling the prophesy of our planetary destruction, rather than working on solutions to solve the problems on Earth. Every space faring entity, be they governmental or corporate, face the same challenges.Star Trek emboldened us all to dream of space, the final frontier. The reality is that our planet Earth is a perfect spaceship. We travel around our star the sun once every year, and the sun pull us with her gravitational force around the galaxy once every 250 million years through star systems, star clusters and all the possible exosolar planets that may host life or be habitable for us to colonize. The sun will be around for billions of years and we have ample time to explore the stars. It would be wise and prudent for us as a species to focus our intellectual and technological knowledge now into preserving our spaceship for the long voyage through the stars, so that once we have figured out how to make life on Earth work in an environmentally and politically sustainable way, we canthen venture off the planet into the final frontier of our dreams.

(continued) **–** Williams 10

Life on Earth is more urgently threatened by the destruction of the biosphere and its life sustaining habitat due environmental catastrophes such as climate change, ocean acidification, disruption of the food chain, bio-warfare, nuclear war, nuclear winter, and myriads of other man-made doomsday prophesies. If we accept these threats as inevitabilities on par with real astronomical dangers and divert our natural, intellectual,political and technological resources from solving these problems into escaping them, will we playing into a self-fulfilling prophesy of our own planetary doom?Seeking space based solutions to our Earthly problems may indeed exacerbate the planetary threats we face. This is the core of the ethical dilemma posed by space colonization: should we put our recourses and bets on developing human colonies on other worlds to survive natural and man-made catastrophes or should we focus all of our energies on solving the problems that create these threats on Earth?

#### Ozone stable – and no impact

Lieberman 07

(Ben, Senior Policy Analyst – Heritage Foundation, “Ozone: The Hole Truth”, The Washington Times, 9-19, Lexis)

Environmentalists have made many apocalyptic predictions over the last several decades. Virtually none has come to pass. Yet each time, the greens and their political allies proclaim victory, arguing their preventive prescriptions averted disaster. Such is the case with the 1987 Montreal Protocol On Substances That Deplete The Ozone Layer (Montreal Protocol). The lurid predictions of ozone depletion-induced skin cancer epidemics, ecosystem destruction and others haven't come true, for which Montreal Protocol proponents congratulate themselves. But in retrospect, the evidence shows ozone depletion was an exaggerated threat in the first place. As the treaty parties return to Montreal for their 20th anniversary meeting it should be cause for reflection, not celebration, especially for those who hope to repeat this "success story" in the context of global warming. The treaty came about over legitimate but overstated concerns that chlorofluorocarbons (CFCs, a then-widely used class of refrigerants) and other compounds were rising to the stratosphere and destroying ozone molecules. These molecules, collectively known as the ozone layer, shield the Earth from excessive ultraviolet-B radiation (UVB) from the sun. The Montreal Protocol's provisions were tightened in 1990 and again in 1992, culminating with a CFC ban in most developed nations by 1996. So what do we know now? As far as ozone depletion is concerned, the thinning of the ozone layer that occurred throughout the 1980s apparently stopped in the early 1990s, too soon to credit the Montreal Protocol. A 1998 World Meteorological Organization (WMO) report said: "Since 1991, the linear [downward] trend observed during the 1980s has not continued, but rather total column ozone has been almost constant." However, the same report noted that the stratospheric concentrations of the offending compounds were still increasing through 1998. This lends credence to the skeptical view, widely derided at the time of the Montreal Protocol, that natural variations better explain the fluctuations in the global ozone layer. More importantly, the feared increase in ground level UVB radiation has also failed to materialize. Keep in mind that ozone depletion, in and of itself, doesn't really harm human health or the environment. It was the concern that an eroded ozone layer will allow more of the sun's damaging UVB rays to reach the Earth that led to the Montreal Protocol. But WMO concedes no statistically significant long-term trends have been detected, noting earlier this year that "outside the polar regions, ozone depletion has been relatively small, hence, in many places, increases in UV due to this depletion are difficult to separate from the increases caused by other factors, such as changes in cloud and aerosol." In short, the impact of ozone depletion on UVB over populated regions is so small it's hard to detect. Needless to say, if UVB hasn't gone up, then the fears of increased UVB-induced harm are unfounded. Indeed, the much-hyped acceleration in skin cancer rates hasn't been documented. U.S. National Cancer Institute statistics show malignant melanoma incidence and mortality, which had been undergoing a long-term increase that predates ozone depletion, has actually been leveling off during the putative ozone crisis. Further, no ecosystem or species was ever shown to be seriously harmed by ozone depletion. This is true even in Antarctica, where the largest seasonal ozone losses, the so-called Antarctic ozone hole, occur annually. Also forgotten is a long list of truly ridiculous claims, such as the one from Al Gore's 1992 book "Earth in the Balance" that, thanks to the Antarctic ozone hole, "hunters now report finding blind rabbits; fisherman catch blind salmon."

#### Effects off black carbon are over exaggerated.

Nelsen, 2014. (Arthur Nelsen is Europe environment correspondent at the Guardian. Climate impact of black carbon severely overestimated, says study. September 26, 2014. https://www.theguardian.com/environment/2014/sep/26/climate-impact-of-black-carbon-severely-overestimated-says-study)

The global warming effect of ‘black carbon’, or soot, has been greatly exaggerated due to mistaken assumptions about the atmospheric altitude at which its particles are concentrated, according to a new study. Soot plumes belch from chimneys, stoves and forest fires, causing numerous health ailments and, it was thought, a contribution to climate change second only to carbon dioxide. But when recent observations about the atmospheric height of soot particles were used, a model simulation by the Centre for International Climate and Environmental Research-Oslo (Cicero), published in the journal Nature Communications, found that its warming impacts were roughly halved. “Soot located at high altitudes has a stronger climate effect than soot closer to the ground,” said Øivind Hodnebrog, the study’s first author. “Most of today’s climate models have too much soot in the upper part of the atmosphere and as a consequence, estimates of its climate effect could be overestimated.” Uncertainty surrounds the exact influence of black carbon on global warming, partly because of the difficulties involved in estimating how much of it is there is. Soot particles are also enigmatic substances, with warming and cooling properties that depend on the atmospheric conditions they encounter as they drift upwards. In the upper troposphere at tropical and middle latitudes, they have the potential to absorb and emit heat and solar radiation. But if they do not rise that far, they may stabilise lower-lying clouds that block the sunlight, so reducing temperatures. “We found a quite strong negative [warming] effect, a cooling effect which partly counteracts the warming caused by the black carbon itself,” Hodnebrog told the Guardian. “Overall the net effect is still positive but the warming is much less.” The Cicero team used contemporary observations taken from the Pacific and Arctic – regions relatively free of the short-term particle fluctuations caused by regional industrial emissions – which indicated that the cloud-forming effect of black carbon had been overlooked. Other models had “severely overestimated” the presence of black carbon in the upper atmosphere, possibly because of an over-estimation of their lifespan, they concluded. The Cicero researchers factored in data showing that the particles are short-lived and relatively localised phenomena, with a lifetime of just a few days before rain washes them out of the clouds they have drifted into. The implications for efforts to combat climate change could be profound. “Soot has been highlighted as a candidate for strong emissions reductions, to achieve a rapid limitation of anthropogenic climate change,” said Bjørn H Samset, another Cicero researcher. “Our results show that this potential is not as large as many believe.” The new study’s findings are qualified with a caveat that they stem from a single climate model and “generalisation of these results should therefore be done with some caution”. Even so, “the bottom line is that efforts to counter global warming should be focused more on CO2 than black carbon,” Hodnebrog said, “because that way you can be sure that you are reducing global warming.”