### Plan

#### Text – Member nations of the Outer Space Treaty ought to rule that appropriation of outer space by private actors is unjust by explicitly applying Article II of the Outer Space Treaty to private actors.

#### To Clarify – this is a whole resolution Affirmative that’s defends implementation through the Outer Space Treaty.

### 1AC: OST

#### Advantage 1 is the OST:

#### Vagueness in the OST that reflect democratized advances in Space cause ambiguity concerns – risks rendering the OST extinct.

CFR 17 10-10-2017 "The Outer Space Treaty’s Midlife Funk" <https://www.cfr.org/blog/outer-space-treatys-midlife-funk> (Council of Foreign Relations)//Elmer

Today marks the fiftieth anniversary of the Outer Space Treaty’s entry into force. The UN agreement, which took effect on October 10th, 1967, created a binding legal regime for the cosmos (Earth notwithstanding). Declaring outer space to be the “province of all mankind” and dictating that it be used for peaceful purposes, the treaty eased U.S.-Soviet tensions, helping to lay the groundwork for the détente of the following decade. The agreement was, in many respects, a triumph for multilateralism. More on: Space Global Commons Global Governance Technology and Innovation Half a century later, however, the Outer Space Treaty has entered something of a funk. Despite the universal aspirations of the UN Committee on the Peaceful Uses of Outer Space, which molded the document into its completed form, many of the principles enshrined within the text are less suited to the present than they were to their native Cold War milieu. While the anachronism has not reached crisis levels, current and foreseeable developments do present challenges for the treaty, heightening the potential for disputes. At the crux of the matter is the ongoing democratization of space. During the 1950s and ‘60s, when the fundamental principles of international space law took shape, only large national governments could afford the enormous outlays required for creating and maintaining a successful space program. In more recent decades, technological advances and new business models have broadened the range of spacefaring actors. Thanks to innovations such as reusable rockets, micro- and nanosatellites, and inflatable space station modules, costs are decreasing and private companies are crowding into the sector. This flurry of activity, known as New Space, promises nothing less than a complete transformation of the way that humans interact with space. Asteroid mining, for example, could eliminate the need to launch many essential materials from Earth, lowering logistical hurdles and enabling largescale in-space fabrication. Companies like Planetary Resources and Deep Space Industries, by extracting and selling useful resources in situ, could help to jumpstart a sustainable space economy. They might also profit from selling valuable commodities back on terra firma. As a recent (bullish) Goldman Sachs report noted, a single football-field-sized asteroid could contain $25 to $50 billion worth of platinum—enough to upend the terrestrial market. With astronomical sums at stake and the commercial sector kicking into high gear, legal questions are becoming a major concern. Many of these questions focus on Article II of the Outer Space Treaty, which prohibits national appropriation of space and the celestial bodies. Since another provision (Article VI) requires nongovernmental entities to operate under a national flag, some experts have suggested that asteroid mining, which would require a period of exclusive use, may violate the agreement. Others, however, contend that companies can claim ownership of extracted resources without claiming ownership of the asteroids themselves. They cite the lunar samples returned to Earth during the Apollo program as a precedent. Hoping to promote American space commerce, Congress formalized this more charitable legal interpretation in Title IV of the 2015 U.S. Commercial Space Launch Competitiveness Act. Luxembourg, which announced a €200 million asteroid mining fund last year, followed suit with its own law in August. Controversies like the one surrounding asteroid mining are par for the course when it comes to the Outer Space Treaty. The agreement’s insistence that space be used “for peaceful purposes” has long been the subject of intense debate. During the treaty-making process, Soviet jurists argued that peaceful meant “non-military” and that spy satellites were illegal; Americans, who enjoyed an early lead in orbital reconnaissance, interpreted peaceful to mean “non-aggressive” and came to the opposite conclusion. Decades later, the precise meaning of the phrase remains a matter of contention.

#### Legal Ambiguity collapses OST Credibility – results in a space free-for-all – clarification to prevent appropriation by Private Actors is key to maintain relevance.

Davis 18 Malcolm Davis .16 Jul 2018. Avoiding a free-for-all: the Outer Space Treaty revisited. <https://www.aspistrategist.org.au/avoiding-a-free-for-all-the-outer-space-treaty-revisited/> [Malcolm Davis is a senior analyst at ASPI. Edited image courtesy of the European Space Agency] // CVHS SR

One theme considered at ASPI’s recent annual Building Australia’s Strategy for Space conference was the growing importance of space law as space becomes more contested, congested and competitive. The basis of space law remains the 1967 Outer Space Treaty (OST), but a lot has happened since it was signed. Perhaps it’s time to review and refresh the treaty. Article IV of the OST states that: States Parties to the Treaty undertake not to place in orbit around the Earth any objects carrying nuclear weapons or any other kinds of weapons of mass destruction, install such weapons on celestial bodies or station weapons in outer space in any other manner. The moon and other celestial bodies shall be used … exclusively for peaceful purposes. The establishment of military bases, installations and fortifications, the testing of any type of weapons and the conduct of military manoeuvres on celestial bodies shall be forbidden … Article IV doesn’t ban the weaponisation of space outright. Nor has there been any other legal agreement that bans such systems, despite ongoing international efforts in recent decades. US adversaries (including China and Russia) are developing a suite of sophisticated counter-space capabilities, including direct ascent and co-orbital ‘hard kill’ and ‘soft kill’ systems (see here and here). The US and its allies must respond seriously to these challenges and protect their critical space-based infrastructure. A ‘space Pearl Harbor’ could quickly remove the traditional information-based war-fighting advantage of Western liberal democracies, leaving the US and its partners deaf, dumb and blind at the outset of a conflict. Part of the solution is to bolster space deterrence, to dissuade the use of counter-space capabilities by adversaries. The US and its allies, including Australia, need to work together to achieve that objective. Strengthening the 1967 OST’s provision on space weapons is also a must, but it will be difficult to get other major space powers such as China and Russia to agree to new legal constraints on capabilities that they’re already developing and testing. It will also be difficult to get agreement on what a space weapon is and what constitutes a counter-space attack. Earth-based soft-kill systems—such as cyberattacks that could create scalable, reversible effects—offer deniability to the aggressor. Article IV bans the militarisation of the moon and other celestial bodies by states, but it has a weakness: it allows ‘use of military personnel for scientific research or for other peaceful purposes’ and includes a vague statement that ‘use of any equipment or facility necessary for peaceful exploration of the moon and other celestial bodies shall also not be prohibited’. Defining ‘peaceful purpose’ activities isn’t easy either, particularly when states such as China have space programs run by the military. As China looks towards crewed lunar missions by the 2030s, there’s a risk that it may exploit ‘grey zone’ phenomena on the high frontier in support of its national strategic ambitions, which include contesting the US advantage in space. The OST was signed at a time when commercial space actors simply didn’t exist. However, Article VI implies the possibility of such actors: States Parties to the Treaty shall bear international responsibility for national activities in outer space, including the moon and other celestial bodies, whether such activities are carried on by government agencies or by non-governmental entities, and for assuring that national activities are carried out in conformity with the provisions set forth in the present Treaty. Yet that doesn’t address activities by commercial space corporations that are acting alone and independently of national guidance—or at least those that declare that they’re doing so. For example, the potential resource wealth of the moon and near-Earth asteroids opens up the prospect for private space corporations to make vast profits from those resources. Article II of the OST says, ‘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 other means.’ But what about the actions of private corporations, perhaps supported by private security contractors, that seek to safeguard a valuable resource claim? The OST does nothing to regulate the actions of such entities. The US’s 2015 Space Act created opportunities for future lunar and asteroid mining by US commercial space companies, and US competitors aren’t likely to sit back and passively watch US companies gain an advantage. That implies a challenge to Article II of the OST, because acquiring a resource and then selling it for profit implies ownership. If Article II is weakened indirectly through commercial activity, competitors may see an opportunity to claim territory on the moon and other celestial bodies. The rationale might be control of a valuable resource or exploitation of high ground in astrostrategic terrain for military advantage. That would undermine the OST at its most fundamental level. This isn’t a justification for imposing draconian governmental or international regulation on the rapidly growing commercial space sector. Such a step would smother innovation and reduce incentives for commercial space activities, slowing the growth of a future off-Earth space industry. Going back to Space 1.0 is entirely the wrong path. The OST needs to be updated to address some of the potential risks in a more contested, congested and competitive space domain extending from low-Earth orbit out to cislunar space and beyond. That would make the treaty more relevant to the future Space 2.0 paradigm in which the fastest progress is led by the commercial sector, a significant portion of which is untethered by government direction. In particular, managing the impact of new commercial space actors that will seek access to and profit from space resources should be a high priority if the OST is to remain relevant. The 1979 Moon Treaty sought to expand on the OST and address some of its shortcomings. It wasn’t ratified by the US, the Russian Federation or China, and so isn’t binding. Alongside an updated OST, a new Moon Treaty that facilitates peaceful commercial activities on the moon and other celestial bodies would be a good step forward. But the updates need to address the shortcomings of both treaties. They should clearly delineate the boundaries between normal commercial activities in what should be a global commons and state or state-owned actors that could compete for national gain. The alternative is a free-for-all on the high frontier, with dangerous risks for major-power competition in a contested space environment.

#### Loopholes that allow Commercial Appropriation are weaponized to undermine Article II of the OST.

Stockwell 20 Samuel Stockwell 7-20-2020 "Legal ‘Black Holes’ in Outer Space: The Regulation of Private Space Companies" <https://www.e-ir.info/2020/07/20/legal-black-holes-in-outer-space-the-regulation-of-private-space-companies/> (Writer at E-IR)//Elmer

On 30th April 2020, NASA – the US government’s space agency ­– awarded three private space companies a joint-contract worth $967m to complete a lunar mission by 2024, in what was celebrated as “the last piece that [America] need[s] in order to get to the moon” by NASA administrator Jim Brindestine (The Telegraph, 2020). Yet, whilst this development was widely covered in the media, less coverage has focused on the extent to which existing international legislation surrounding outer space endeavours appropriately applies to private entities. Indeed, the prospect of a corporate foothold within the extra-terrestrial domain has thrown up both a mixture of optimism and concern regarding the potential benefits of expanding capital projects into space (Adolph, 2006; Dickens & Ormrod, 2007). By adopting the 1967 UN Outer Space Treaty (OST) as an analytical framework in relation to the rise of the so-called US ‘NewSpace’ actors, this essay argues that there are significant legal ambiguities regarding the status of private space companies in orbital space. Such loopholes allow the US government to circumvent its own obligations to the OST, whilst simultaneously undermining the notion of space as a ‘global commons’ through a commodification process. The lack of specificity within the OST surrounding private property rights over extra-terrestrial resources risks the prospect of reinforcing Earth-bound wealth inequalities and US dominance in space, by restricting the potential economic benefits for the broader global citizenry in favour of a narrow class of wealthy American investors. Moreover, the OST’s weak clause regarding the regulation of space surveillance risks the incentivisation of a ‘global panopticon’ network of US satellites. The rise of dual-use technology is blurring the boundaries between military and civilian observations, raising serious ethical concerns over the nature of US space-based data collection. Finally, the increasing number of private satellite constellations is facilitating the possibility of cataclysmic space debris collisions which could exacerbate geopolitical tensions. Such developments are also contributing towards the contamination of the broader space environment in ways that the OST had never envisioned.

#### Credible OST solves Space War.

Johnson 17 Christopher Johnson 1-23-2017 “The Outer Space Treaty at 50” , <http://thespacereview.com/article/3155/1> (graduate of Leiden University’s International Institute of Air and Space Law and the International Space University)//Elmer

As mentioned, many of the provisions of the Outer Space Treaty were borrowed from previous UN General Assembly resolutions. But as resolutions alone, these documents were non-binding and did not require states to alter their behavior. And while UN General Assembly resolutions are not normally law-making exercises, they do record the commonly-held expression of intentions by the states in the General Assembly, and make political recommendations to UNGA Members (or to the UN Security Council). UNGA Resolutions can also set priorities and mold opinion for inclusion in subsequent treaties. The prohibition on the placement of nuclear weapons and other weapons of mass destruction in outer space or their installation on celestial bodies was taken from UNGA Resolution 1884 of 1963. The resolution: [s]olemnly calls upon all States… [t]o refrain from placing in orbit around the earth any objects carrying nuclear weapons or any other kinds of weapons of mass destruction, installing such weapons on celestial bodies, or stationing such weapons in outer space in any other manner. This prohibition was transferred to the Outer Space Treaty, and thereby remade into international treaty law. As President Johnson pointed out in his recommendation to Congress to ratify the Outer Space Treaty, “the realms of space should forever remain realms of peace.”5 He continued: We know the gains of cooperation. We know the losses of the failure to cooperate. If we fail now to apply the lessons we have learned, or even if we delay their application, we know that the advances into space may only mean adding a new dimension to warfare. If, however, we proceed along the orderly course of full cooperation we shall, by the very fact of cooperation, make the most substantial contribution toward perfecting peace.6 The agreement contained in Article IV of the Outer Space Treaty reflects an agreement between the US and the USSR, as obligations restricting their freedom of action. Why would a state intentionally place a restriction on itself? Isn’t it better to merely keep outer space as unregulated as possible? Since there were only two states then capable of venturing into outer space, why did either state agree to rules governing its actions? It may seem counterintuitive, but the deeper rationale behind security arrangements like this is that the parties actually benefit in the long-term from placing mutual restrictions on their behavior. Agreeing to restrict your freedom of action has deep links to the usefulness or utility of law itself. Consider driving a car: in order to get a license, you agree to observe certain rules, and the license signals your obligation to obey these rules. However, sometimes adhering to those rules is not only inconvenient (such as stopping at stop signs when there’s nobody else at the intersection), it is also against your short term-interests (you have an appointment or will otherwise suffer from observing the rules.) However, agreeing to operate within a system where your freedoms are sometimes restricted can have the effect of actually increasing your freedom over the long term. Wouldn’t you rather live in a state where traffic laws exist, and other drivers agree to observe them? Isn’t that system preferable to living in a state without traffic rules? Indeed, a system with traffic rules increases not just freedom in general, but overall safety and orderliness. Consequently, because the system with rules is preferable to the system without rules, your willingness to use the roads allows you to travel with greater security and ease. You are better assured of the likelihood that you will get to your intended destination without some other driver crashing into you. Knowing that safe travel is likely, you are more willing to take trips more often, and to farther destinations. Your freedom is actually increased over the long term because you are willing to suffer temporary, short-term restrictions such as inconvenient red lights. Long-term rationality warrants adherence to efficient systems of law. Correctly-balanced rules help increase long-term benefits (like safety and security) that would otherwise be unattainable without a system of rules. It is this rationale that also underpins international treaty-making. Today, the current absence of nuclear weapons or other weapons of mass destruction in outer space attests to the bargain struck in the Outer Space Treaty being a successful one, where security (and the liberty and freedom possible with security) were furthered by the mutual exchange of restrictions that states placed upon themselves. The more than 50 years of peaceful uses of outer space, including cooperation between states who remain rivals elsewhere, are the rich long-term gains resulting from the Outer Space Treaty.

#### Space War cause Nuclear War.

Gallagher 15 “Antisatellite warfare without nuclear risk: A mirage” <http://thebulletin.org/space-weapons-and-risk-nuclear-exchanges8346> (interim director of the Center for International and Security Studies in Maryland, previous Executive Director of the Clinton Administration’s CTBT Treaty Committee, an arms control specialist at the State Dept., and a faculty member at Wesleyan)//Elmer

In recent decades, however, as space-based reconnaissance, communication, and targeting capabilities have become integral elements of modern military operations, strategists and policy makers have explored whether carrying out antisatellite attacks could confer major military advantages without increasing the risk of nuclear war. In theory, the answer might be yes. In practice, it is almost certainly no. Hyping threats. No country has ever deliberately and destructively attacked a satellite belonging to another country (though nations have sometimes interfered with satellites' radio transmissions). But the United States, Russia, and China have all tested advanced kinetic antisatellite weapons, and the United States has demonstrated that it can modify a missile-defense interceptor for use in antisatellite mode. Any nation that can launch nuclear weapons on medium-range ballistic missiles has the latent capability to attack satellites in low Earth orbit. Because the United States depends heavily on space for its terrestrial military superiority, some US strategists have predicted that potential adversaries will try to neutralize US advantages by attacking satellites. They have also recommended that the US military do everything it can to protect its own space assets while maintaining a capability to disable or destroy satellites that adversaries use for intelligence, communication, navigation, or targeting. Analysis of this sort often exaggerates both potential adversaries’ ability to destroy US space assets and the military advantages that either side would gain from antisatellite attacks. Nonetheless, some observers are once again advancing worst-case scenarios to support arguments for offensive counterspace capabilities. In some other countries, interest in space warfare may be increasing because of these arguments. If any nation, for whatever reason, launched an attack on a second nation's satellites, nuclear retaliation against terrestrial targets would be an irrational response. But powerful countries do sometimes respond irrationally when attacked. Moreover, disproportionate retaliation following a deliberate antisatellite attack is not the only way in which antisatellite weapons could contribute to nuclear war. It is not even the likeliest way. As was clearly understood by the countries that negotiated the Outer Space Treaty, crisis management would become more difficult, and the risk of inadvertent deterrence failure would increase, if satellites used for reconnaissance and communication were disabled or destroyed. But even if the norm against attacking another country’s satellites is never broken, developing and testing antisatellite weapons still increase the risk of nuclear war. If, for instance, US military leaders became seriously concerned that China or Russia were preparing an antisatellite attack, pressure could build for a pre-emptive attack against Chinese or Russian strategic forces. Should a satellite be struck by a piece of space debris during a crisis or a low-level terrestrial conflict, leaders might mistakenly assume that a space war had begun and retaliate before they knew what had actually happened. Such scenarios may seem improbable, but they are no more implausible than the scenarios that are used to justify the development and use of antisatellite weapons.

#### Nuke war causes extinction AND outweighs other existential risks

* Checked

PND 16. internally citing Zbigniew Brzezinski, Council of Foreign Relations and former national security adviser to President Carter, Toon and Robock’s 2012 study on nuclear winter in the Bulletin of Atomic Scientists, Gareth Evans’ International Commission on Nuclear Non-proliferation and Disarmament Report, Congressional EMP studies, studies on nuclear winter by Seth Baum of the Global Catastrophic Risk Institute and Martin Hellman of Stanford University, and U.S. and Russian former Defense Secretaries and former heads of nuclear missile forces, brief submitted to the United Nations General Assembly, Open-Ended Working Group on nuclear risks. A/AC.286/NGO/13. 05-03-2016. <http://www.reachingcriticalwill.org/images/documents/Disarmament-fora/OEWG/2016/Documents/NGO13.pdf> //Re-cut by Elmer

Consequences human survival 12. Even if the 'other' side does NOT launch in response the smoke from 'their' burning cities (incinerated by 'us') will still make 'our' country (and the rest of the world) uninhabitable, potentially inducing global famine lasting up to decades. Toon and Robock note in ‘Self Assured Destruction’, in the Bulletin of Atomic Scientists 68/5, 2012, that: 13. “A nuclear war between Russia and the United States, even after the arsenal reductions planned under New START, could produce a nuclear winter. Hence, an attack by either side could be suicidal, resulting in self assured destruction. Even a 'small' nuclear war between India and Pakistan, with each country detonating 50 Hiroshima-size atom bombs--only about 0.03 percent of the global nuclear arsenal's explosive power--as air bursts in urban areas, could produce so much smoke that temperatures would fall below those of the Little Ice Age of the fourteenth to nineteenth centuries, shortening the growing season around the world and threatening the global food supply. Furthermore, there would be massive ozone depletion, allowing more ultraviolet radiation to reach Earth's surface. Recent studies predict that agricultural production in parts of the United States and China would decline by about **20 percent** for four years, and by 10 percent for a decade.” 14. A conflagration involving USA/NATO forces and those of Russian federation would most likely cause the deaths of most/nearly all/all humans (and severely impact/extinguish other species) as well as destroying the delicate interwoven techno-structure on which latter-day 'civilization' has come to depend. Temperatures would drop to below those of the last ice-age for up to 30 years as a result of the lofting of up to 180 million tonnes of very black soot into the stratosphere where it would remain for decades. 15. Though human ingenuity and resilience shouldn't be underestimated, human survival itself is arguably problematic, to put it mildly, under a 2000+ warhead USA/Russian federation scenario. 16. The Joint Statement on Catastrophic Humanitarian Consequences signed October 2013 by 146 governments mentioned 'Human Survival' no less than 5 times. The most recent (December 2014) one gives it a highly prominent place. Gareth Evans’ ICNND (International Commission on Nuclear Non-proliferation and Disarmament) Report made it clear that it saw the threat posed by nuclear weapons use as one that at least threatens what we now call 'civilization' and that potentially threatens human survival with an immediacy that even climate change does not, though we can see the results of climate change here and now and of course the immediate post-nuclear results for Hiroshima and Nagasaki as well.

#### That net outweighs a terrestrial conflict.

Roberts 17 Thomas Gonzalez Roberts 12-15-2017 “Why We Should Be Worried about a War in Space” <https://www.theatlantic.com/science/archive/2017/12/why-we-should-be-worried-about-a-war-in-space/548507/> (A space security researcher at the Center for Strategic and International Studies)//Elmer

One hundred miles above the Earth’s surface, orbiting the planet at thousands of miles per hour, the six people aboard the International Space Station enjoy a perfect isolation from the chaos of earthly conflict. Outer space has never been a military battleground. But that may not last forever. The [debate in Congress](https://docs.google.com/document/d/1e6zH3AfZHs4hLpGaKwmxAVxR-LfWk0110THq9tIhgOU/edit?ts=5a2f95e8?utm_source=masthead-newsletter&utm_medium=email&utm_campaign=member-newsletter-20171213-20&silverid=%25%25RECIPIENT_ID%25%25) over whether to create a Space Corps comes at a time when governments around the world are engaged in a bigger international struggle over how militaries should operate in space. Fundamental changes are [already underway](https://www.csis.org/analysis/congress-creating-military-space-corps?utm_source=masthead-newsletter&utm_medium=email&utm_campaign=member-newsletter-20171213-20&silverid=%25%25RECIPIENT_ID%25%25). No longer confined to the [fiction shelf](https://best-sci-fi-books.com/23-best-military-science-fiction-books/?utm_source=masthead-newsletter&utm_medium=email&utm_campaign=member-newsletter-20171213-20&silverid=%25%25RECIPIENT_ID%25%25), space warfare is likely on the horizon. While agreements for how to operate in other international domains, like the open sea, airspace, and even cyberspace, have already been established, the major space powers—the United States, Russia, and China—have not agreed upon a rulebook outlining what constitutes bad behavior in space. It’s [presumed](http://intercrossblog.icrc.org/blog/twmzia1cp84kv2c29bi4iz6q4u03in?utm_source=masthead-newsletter&utm_medium=email&utm_campaign=member-newsletter-20171213-20&silverid=%25%25RECIPIENT_ID%25%25) that International Humanitarian Law would apply in outer space—protecting the civilian astronauts aboard the International Space Station—but it’s unclear whether damaging civilian satellites or the space environment itself is covered under the agreement. With only a limited history of dangerous behavior to study, and few, [outdated guidelines](http://www.unoosa.org/oosa/en/ourwork/spacelaw/treaties/introouterspacetreaty.html?utm_source=masthead-newsletter&utm_medium=email&utm_campaign=member-newsletter-20171213-20&silverid=%25%25RECIPIENT_ID%25%25) in place, a war in space would be a war with potentially more consequences, but far fewer rules, than one on Earth. Although there has never been a military conflict in space, the history of human activity above our atmosphere is not entirely benign. In 1962, the United States [detonated a 1.4 megaton nuclear weapon](https://www.smithsonianmag.com/history/going-nuclear-over-the-pacific-24428997/?utm_source=masthead-newsletter&utm_medium=email&utm_campaign=member-newsletter-20171213-20&silverid=%25%25RECIPIENT_ID%25%25) 250 miles above the Earth’s surface. The blast destroyed approximately one third of satellites in orbit and poisoned the most used region of space with radiation that lasted for years. Although the United States, Russia, and others soon agreed to a treaty to prevent another nuclear test in space, China and North Korea never signed it. In 2007, China [tested an anti-satellite weapon](http://www.washingtonpost.com/wp-dyn/content/article/2007/01/18/AR2007011801029.html?utm_source=masthead-newsletter&utm_medium=email&utm_campaign=member-newsletter-20171213-20&silverid=%25%25RECIPIENT_ID%25%25), a conventionally-armed missile designed to target and destroy a satellite in orbit. In the process, it annihilated an old Chinese weather satellite and created high-velocity shrapnel that still threatens other satellites. Even though demonstrations like this have consequences for everyone, countries are free to carry them out as they see fit. No treaties address this kind of test, the creation of space debris, or the endangerment of other satellites. The U.S. has the most to lose in a space-based conflict With by far the most satellites in orbit, the U.S. has the most to gain by establishing norms, but also the most to lose. Almost half of all operational satellites are owned and operated by the United States government or American commercial companies. That’s twice as many as Russia and China, combined. Space may seem distant, but what happens there affects our everyday lives on the ground. When we use our phones to plan a trip, we depend on American GPS satellites to guide us. When the U.S. military deploys troops overseas, satellite communications connect forces on the ground to control centers. When North Korea launches an intercontinental ballistic missile, the U.S. and its allies depend on early-warning satellites to detect it. On one hand, if the global space powers agreed to put limits on space-based weapons and other related technologies, it could make space safer for everyone. But because the U.S. may have spent time and resources [developing](https://www.theatlantic.com/technology/archive/2017/05/why-so-secretive/525969/?utm_source=masthead-newsletter&utm_medium=email&utm_campaign=member-newsletter-20171213-20&silverid=%25%25RECIPIENT_ID%25%25) exactly the type of weapons that a code of conduct would ban, it could also curtail the most advanced space-based developments, erasing years of research and progress. There are more players in space—and less consensus In the [first space age](https://www.csis.org/analysis/escalation-and-deterrence-second-space-age?utm_source=masthead-newsletter&utm_medium=email&utm_campaign=member-newsletter-20171213-20&silverid=%25%25RECIPIENT_ID%25%25), from the launch of the first human-made satellite in 1957 through the fall of the Soviet Union, the United States and the USSR were responsible for over 90 percent of all satellites. Their race to perfect space technology, dominated by both national security interests and scientific discovery, far outpaced everyone else. The second space age, from 1990 to today, looks remarkably different. Now, more satellites are operated by private companies than militaries, and more space launches and new satellites come from countries other than the United States and Russia. More players in space—particularly more unpredictable players—means more opportunities for aggressive behavior, like developing anti-satellite technologies or hacking satellite communications. Countries like Iran or North Korea that are newer to space can choose to operate in a way we’ve never seen before. And if their nuclear programs on Earth are [any guide](https://www.theatlantic.com/international/archive/2017/10/iran-northk-korea-nuclear/542673/?utm_source=masthead-newsletter&utm_medium=email&utm_campaign=member-newsletter-20171213-20&silverid=%25%25RECIPIENT_ID%25%25), they could pose serious threats if left unchecked. Efforts have been made to create a modern-day space rulebook, but so far none have gained traction. In 2008, when Russia and China both proposed norms of behavior, the United States [refused to sign on](https://www.theatlantic.com/science/archive/2017/04/space-war/521910/?utm_source=masthead-newsletter&utm_medium=email&utm_campaign=member-newsletter-20171213-20&silverid=%25%25RECIPIENT_ID%25%25). Similarly, when the United States supported a 2014 European Union proposal to govern the use of conventional weapons in orbit, Russia and China didn’t agree with the terms. Since the congressional debate about a Space Corps, people have been taking the prospect of a war in space seriously, in a way we haven’t seen before. Now we should start talking about how to avoid that war. To prevent conflict in the upper atmosphere, all potential adversaries—the United States, China, North Korea, Iran, Russia, the EU—need to align, and agree on norms of behavior. They need rules.

#### Exemptions from OST 2.0 endangers the credibility of the entire treaty.

Hickman and Dolman 2 John Hickman and Everett Dolman Volume 21 Number 1 2002 “Resurrecting the Space Age: A State–Centered Commentary on the Outer Space Regime” (associate professor in the Department of Government and International Studies at Berry College in Mt. Berry)//Elmer

Thus a state party need merely announce its intention to withdraw and then wait one year. Withdrawal of a single state party to the treaty, however, would not necessarily terminate the treaty between the other state parties. Yet, the decision of an important state not to be bound by a regime–creating treaty obviously endangers the entire treaty. The decision of the United States or China to withdraw from the OST would have far greater implications for the survival of the international space regime than the same decision by Bangladesh, Burkina Faso, or Papua New Guinea—the equality of states under international law remains nothing more than a useful fiction. For the OST to remain good international law, it must be accepted as such by the major space faring states of the 21st Century: the United States, Russia, the European Union, Japan, and China. One defection from the regime by a member of this group would no doubt lead to its effective collapse, as the remaining space faring states are unlikely to use the kind of coercion necessary to enforce the regime. A more likely response to such a defection is a scramble to make similar claims to sovereignty, based on historical precedent and effective occupation. Similar rushes to stake claims for territory sovereignty in other celestial bodies might follow.

#### Independently – commercial legality of Space Appropriation causes a militarized space war – only the plan solves.

Perez 21 Veronica Delgado-Perez. 12/14/21. Argument | The Commercialization of Space Risks Launching a Militarized Space Race. <https://www.theintlscholar.com/periodical/12/14/2020/analysis-commercialization-space-risk-international-law-military-space-race> [Veronica Delgado-Perez is a Staff Writer at The International Scholar.] // CVHS SR

Fundamentals of the Final Frontier It is a geopolitical imperative to determine what, if any, commercial activities and use of extraterrestrial resources are permitted within the confines of international law. Without clear-cut agreements on what activity is recognized by international law, the world will undoubtedly see states push the boundaries ever further in an attempt to gain the edge over geopolitical competitors — even more-so in an era of renewed great power competition. Yet to date, there exists no comprehensive treaty or legal reference to commercial activity in space. However, this should come as no surprise. It has only been since the turn of the century that technology and markets have progressed to the point where commercial space exploration and exploitation has become possible. Only recently have experts and analysts of geopolitics and international law begun to seriously examine questions surrounding the legal framework that would govern extraterrestrial resource-mining and other commercial activities. In the last decade, the United Nations Committee on the Peaceful Uses of Outer Space (COPUOS) dealt with commercial aspects in outer space. In one of their last reports, the Committee expressed that the era of the commercial utilization of outer space’s resources is intrinsically linked to the escalation of international competition over resources, which could threaten international peace and security. By encouraging the international community to engage in outer space’s activities for the benefit of humankind as a whole, “some delegations” have expressed that states should avoid the promotion of laws and regulations related to the commercialization of outer space, arguing that it should be considered the heritage of all humanity. In that regard, states must then ensure that domestic law on the use of outer space complies with international space law, which means that states should respect the principles outlined in the Outer Space Treaty and ensure that national regulations do not contravene international provisions. Even though the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and other Celestial Bodies (which entered into force in 1967), refers to the exploration and use of outer space, it does not address questions of a commercial nature, which compromises the ability of states and international actors to address new challenges to extraterrestrial activities. In several provisions, the treaty highlights that these activities may be carried out for peaceful purposes and the benefit of all people, reaffirming that outer space is not subject to national appropriation. Were outer space not considered a global commons, that would imply that the resources and results of commercial exploration may fall within the jurisdiction of a country. It is thus incumbent upon Washington — and its commercial enterprises — to demonstrate how American commercial exploration of space benefits other countries and complies with international space law, or otherwise to adhere to the spirit of past treaties which emphasize the impartiality of outer space until such time as the law is clarified. International Law is Adrift in Space The potential benefits of commercial space exploration cannot be ignored. From an economic standpoint, the space industry would generate a significant economic boon for both states and private companies, due to the abundance and variety of resources — particularly scarce minerals that are difficult to extract on Earth. As one example of the vastness of resources held in outer space, one asteroid has the potential to contain more than the total supply of platinum extracted throughout the history of mankind. It may very well open the door to an advanced era of space navigation, building extraterrestrial infrastructure that facilitates the exploration and use of space’s resources, and extra-planetary human habitation. Inevitably, there are significant drawbacks to the commercialization of space exploration. These can vary, for instance, from the commercial dominance of space’s natural resources only by those states with the technical and financial capital to support space missions, to geopolitical competition over extraterrestrial resources that threatens world peace and security, to the potential for the monopolization of extraterrestrial resources by states and private companies. As was the case during the Cold War, the Soviet Union and the United States began a Space Race in which they struggled to achieve supremacy in space exploration and domination of science. Today, the number of space powers has increased thanks to continual advancements in flight, combustion, and fueling technologies. In the three decades since the end of the Cold War, technologically advanced countries like China, Japan, and France which previously had no space program have successfully navigated to the top tier of space-faring agencies and programs. In 2018, the U.S. allocated $41 billion to space programs, followed by China at $5.8 billion, and Russia at $3.1 billion. Collectively, the three major space powers control almost 65% of the global industry, showing space powers are monopolizing space and reinforcing the inequality gap between states that do not have sufficient economic and technological capacity to invest. With new actors on the game stage, conflicts of interest may arise. There is a risk that each actor adopts a kind of short-term Realist approach to space policy — one which is driven by self-interest in reaping the greatest benefits of extraterrestrial exploration and commercialization while controlling access to others. If unmitigated, states may choose to militarize outer space to gain a strategic edge over competitors and adversaries. This process has already begun. Under the Trump administration, the Pentagon established the U.S. Space Force as a new branch of the Armed Forces to protect the country and allied interests in space. Already, Delta 4 — one of the U.S. Space Force’s missions — conducts strategic and theater missile warnings, manages weapon systems, and provides information to missile defense forces. The measure shows that for the U.S., outer space is not only a domain of scientific exploration but has the potential to become increasingly securitized. With the impending expiration of the Strategic Arms Reduction Treaty (START) between the U.S. and Russia on February 5, 2021, a number of security dilemmas could arise. If the world’s two largest nuclear powers do not edge toward extending the treaty, Washington and Moscow risk returning to the era of unrestricted expansion of launch platforms and strategically-deployed nuclear warheads — potentially with the aid of military infrastructure in space. Although President-elect Biden has expressed his interest in negotiating an extension of New START, how Moscow and Washington might proceed remains an open question. Bilateral progress towards a new arms-control regime would require establishing limits on the number and range of long- and mid-range missiles, establishing measures to limit the expansion of traditional missile deployment to space, and banning the deployment of nuclear weapons and weapons of mass destruction in outer space. More than the risk of the securitization of space, state, and private actors could begin to claim exclusive legal rights over the resources they discover. Indeed, the U.S. Commercial Space Launch Competitiveness Act, which came into force in 2015, expressly recognizes the right of U.S. Citizens to possess, own, transport, use, and sell space resources. By this means, domestic law already acknowledges the legal claim to property by individuals, which is prohibited by international law. Under the Outer Space Treaty, states renounced any traditional form of acquisition of territories and agreed not to foray unilaterally into space to extend their national policies on Earth or to exercise any kind of sovereignty over celestial bodies or resources. The absence of a modern international treaty that addresses these issues should be received with grave concern, as there is significant potential for risk to become reality. Existing UN treaties lack the technological context and foresight to address legal questions regarding the potential for commercial exploration and exploitation of outer space or its resources. During the sixties and seventies, when international instruments like the Outer Space treaty were conceived, the principal aim of states was to support and expand the scale of the state’s national capacity for operation in space and the development of legal instruments to guide state’s international cooperation in the peaceful exploration of outer space. These instruments were never designed to respond to commercial questions over mining or tourism in space, private investment in space activities, or the emergence of non-state private enterprises operating in space. As a result, private enterprises operating in the vacuum of space also float in an unstable legal vacuum which threatens to implode in geopolitical competition. Beyond Stars and States In an increasingly commercial outer space in which there are no set limits to the exploitation of resources or claim to property, states and private companies will inevitably pursue the development of new extraterrestrial industries to suit their geoeconomic interests. If unchecked, the legal protection of outer space as a domain of exploration for the benefit of all humanity would functionally fail. To protect investments and profit from national space industries, states would likely resort to military force to protect and secure private assets. Over time, space would ultimately become a fourth border domain over which states claim, exercise, and defend sovereignty — including through the use of force. The challenge is thus to prevent the circumstances that could lead to space-borne conflict before it is made possible. Notwithstanding, commercial exploration and the use of natural resources need not lead to predation among actors involved in space. The potential rewards — both technological and environmental — that could come from investment in the harvesting of resources in space are immense. International law cannot afford to wait for the security dilemma posed by commercial activity in space to manifest before addressing it but must anticipate and proactively adopt measures to address future issues that govern extraterrestrial human activity. The only remedy for the lack of legal governance over commercial activity in space is the creation of new international laws through a comprehensive international treaty on commercial operations in space. The new treaty must expressly regulate commercial activities by states and private companies, enshrine an international liability and compensation regime covering damages caused with workable sanction provisions, and reinforce norms that restrict any militarization of outer space. The international community should focus its efforts on establishing a legal regime, with mandatory provisions (rather than non-binding resolutions, observations, commentaries, and conclusions) which generate both international responsibility and provide enforceable sanctions in the event of violations. The effort should be borne out by expanding the scope and strengthening the oversight powers of the United Nations Committee on the Peaceful Uses of Outer Space (COPUOS), rather than creating a new organ with redundant bureaucracy. Beyond the tasks of encouraging space research programs, studying space activities, and addressing legal questions, COPUOS should be granted the necessary powers to perform control and oversight monitoring functions. Experience has taught the international community that cooperative arrangements between states and international organizations can prevent competition for resources from escalating to kinetic conflict*.* Through cooperation, there is a chance to preserve extraterrestrial resources for future generations, secure an equitable allocation of resources and benefits with a mind to each country’s specific needs, and prevent the expansion of geopolitical conflict to the domain of space. Space powers must recognize the value in partnering with other states to advance the development of space programs more efficiently. It should be clear now that all nations could reap the benefits of collective action, exploration, and commercialization of resources from beyond Earth’s atmosphere while preventing a drawn-out international conflict to the final frontier. The will of states not to jeopardize the fundamental basis of international law must be reflected in coordination and surveillance efforts to ensure that the advantages derived from space exploration allow humanity to continue evolving.

### FW

#### The standard is maximizing expected well-being. – we will spec – Hedonistic act Utilitarianism

#### Prefer:

#### 1] Pleasure and pain are intrinsic value and disvalue – everything else regresses. Evolutionary knowledge is reliable – broad consensus and robust neuroscience prove.

Blum et al. 18

Kenneth Blum, 1Department of Psychiatry, Boonshoft School of Medicine, Dayton VA Medical Center, Wright State University, Dayton, OH, USA 2Department of Psychiatry, McKnight Brain Institute, University of Florida College of Medicine, Gainesville, FL, USA 3Department of Psychiatry and Behavioral Sciences, Keck Medicine University of Southern California, Los Angeles, CA, USA 4Division of Applied Clinical Research & Education, Dominion Diagnostics, LLC, North Kingstown, RI, USA 5Department of Precision Medicine, Geneus Health LLC, San Antonio, TX, USA 6Department of Addiction Research & Therapy, Nupathways Inc., Innsbrook, MO, USA 7Department of Clinical Neurology, Path Foundation, New York, NY, USA 8Division of Neuroscience-Based Addiction Therapy, The Shores Treatment & Recovery Center, Port Saint Lucie, FL, USA 9Institute of Psychology, Eötvös Loránd University, Budapest, Hungary 10Division of Addiction Research, Dominion Diagnostics, LLC. North Kingston, RI, USA 11Victory Nutrition International, Lederach, PA., USA 12National Human Genome Center at Howard University, Washington, DC., USA, Marjorie Gondré-Lewis, 12National Human Genome Center at Howard University, Washington, DC., USA 13Departments of Anatomy and Psychiatry, Howard University College of Medicine, Washington, DC US, Bruce Steinberg, 4Division of Applied Clinical Research & Education, Dominion Diagnostics, LLC, North Kingstown, RI, USA, Igor Elman, 15Department Psychiatry, Cooper University School of Medicine, Camden, NJ, USA, David Baron, 3Department of Psychiatry and Behavioral Sciences, Keck Medicine University of Southern California, Los Angeles, CA, USA, Edward J Modestino, 14Department of Psychology, Curry College, Milton, MA, USA, Rajendra D Badgaiyan, 15Department Psychiatry, Cooper University School of Medicine, Camden, NJ, USA, Mark S Gold 16Department of Psychiatry, Washington University, St. Louis, MO, USA, “Our evolved unique pleasure circuit makes humans different from apes: Reconsideration of data derived from animal studies”, U.S. Department of Veterans Affairs, 28 February 2018, accessed: 19 August 2020, <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6446569/>, R.S.

**Pleasure** is not only one of the three primary reward functions but it also **defines reward.** As homeostasis explains the functions of only a limited number of rewards, the principal reason why particular stimuli, objects, events, situations, and activities are rewarding may be due to pleasure. This applies first of all to sex and to the primary homeostatic rewards of food and liquid and extends to money, taste, beauty, social encounters and nonmaterial, internally set, and intrinsic rewards. Pleasure, as the primary effect of rewards, drives the prime reward functions of learning, approach behavior, and decision making and provides the **basis for hedonic theories** of reward function. We are attracted by most rewards and exert intense efforts to obtain them, just because they are enjoyable [10]. Pleasure is a passive reaction that derives from the experience or prediction of reward and may lead to a long-lasting state of happiness. The word happiness is difficult to define. In fact, just obtaining physical pleasure may not be enough. One key to happiness involves a network of good friends. However, it is not obvious how the higher forms of satisfaction and pleasure are related to an ice cream cone, or to your team winning a sporting event. Recent multidisciplinary research, using both humans and detailed invasive brain analysis of animals has discovered some critical ways that the brain processes pleasure [14]. Pleasure as a hallmark of reward is sufficient for defining a reward, but it may not be necessary. A reward may generate positive learning and approach behavior simply because it contains substances that are essential for body function. When we are hungry, we may eat bad and unpleasant meals. A monkey who receives hundreds of small drops of water every morning in the laboratory is unlikely to feel a rush of pleasure every time it gets the 0.1 ml. Nevertheless, with these precautions in mind, we may define any stimulus, object, event, activity, or situation that has the potential to produce pleasure as a reward. In the context of reward deficiency or for disorders of addiction, homeostasis pursues pharmacological treatments: drugs to treat drug addiction, obesity, and other compulsive behaviors. The theory of allostasis suggests broader approaches - such as re-expanding the range of possible pleasures and providing opportunities to expend effort in their pursuit. [15]. It is noteworthy, the first animal studies eliciting approach behavior by electrical brain stimulation interpreted their findings as a discovery of the brain’s pleasure centers [16] which were later partly associated with midbrain dopamine neurons [17–19] despite the notorious difficulties of identifying emotions in animals. Evolutionary theories of pleasure: The love connection BO:D Charles Darwin and other biological scientists that have examined the biological evolution and its basic principles found various mechanisms that steer behavior and biological development. Besides their theory on natural selection, it was particularly the sexual selection process that gained significance in the latter context over the last century, especially when it comes to the question of what makes us “what we are,” i.e., human. However, the capacity to sexually select and evolve is not at all a human accomplishment alone or a sign of our uniqueness; yet, we humans, as it seems, are ingenious in fooling ourselves and others–when we are in love or desperately search for it. It is well established that modern biological theory conjectures that **organisms are** the **result of evolutionary competition.** In fact, Richard Dawkins stresses gene survival and propagation as the basic mechanism of life [20]. Only genes that lead to the fittest phenotype will make it. It is noteworthy that the phenotype is selected based on behavior that maximizes gene propagation. To do so, the phenotype must survive and generate offspring, and be better at it than its competitors. Thus, the ultimate, distal function of rewards is to increase evolutionary fitness by ensuring the survival of the organism and reproduction. It is agreed that learning, approach, economic decisions, and positive emotions are the proximal functions through which phenotypes obtain other necessary nutrients for survival, mating, and care for offspring. Behavioral reward functions have evolved to help individuals to survive and propagate their genes. Apparently, people need to live well and long enough to reproduce. Most would agree that homo-sapiens do so by ingesting the substances that make their bodies function properly. For this reason, foods and drinks are rewards. Additional rewards, including those used for economic exchanges, ensure sufficient palatable food and drink supply. Mating and gene propagation is supported by powerful sexual attraction. Additional properties, like body form, augment the chance to mate and nourish and defend offspring and are therefore also rewards. Care for offspring until they can reproduce themselves helps gene propagation and is rewarding; otherwise, many believe mating is useless. According to David E Comings, as any small edge will ultimately result in evolutionary advantage [21], additional reward mechanisms like novelty seeking and exploration widen the spectrum of available rewards and thus enhance the chance for survival, reproduction, and ultimate gene propagation. These functions may help us to obtain the benefits of distant rewards that are determined by our own interests and not immediately available in the environment. Thus the distal reward function in gene propagation and evolutionary fitness defines the proximal reward functions that we see in everyday behavior. That is why foods, drinks, mates, and offspring are rewarding. There have been theories linking pleasure as a required component of health benefits salutogenesis, (salugenesis). In essence, under these terms, pleasure is described as a state or feeling of happiness and satisfaction resulting from an experience that one enjoys. Regarding pleasure, it is a double-edged sword, on the one hand, it promotes positive feelings (like mindfulness) and even better cognition, possibly through the release of dopamine [22]. But on the other hand, pleasure simultaneously encourages addiction and other negative behaviors, i.e., motivational toxicity. It is a complex neurobiological phenomenon, relying on reward circuitry or limbic activity. It is important to realize that through the “Brain Reward Cascade” (BRC) endorphin and endogenous morphinergic mechanisms may play a role [23]. While natural rewards are essential for survival and appetitive motivation leading to beneficial biological behaviors like eating, sex, and reproduction, crucial social interactions seem to further facilitate the positive effects exerted by pleasurable experiences. Indeed, experimentation with addictive drugs is capable of directly acting on reward pathways and causing deterioration of these systems promoting hypodopaminergia [24]. Most would agree that pleasurable activities can stimulate personal growth and may help to induce healthy behavioral changes, including stress management [25]. The work of Esch and Stefano [26] concerning the link between compassion and love implicate the brain reward system, and pleasure induction suggests that social contact in general, i.e., love, attachment, and compassion, can be highly effective in stress reduction, survival, and overall health. Understanding the role of neurotransmission and pleasurable states both positive and negative have been adequately studied over many decades [26–37], but comparative anatomical and neurobiological function between animals and homo sapiens appear to be required and seem to be in an infancy stage. Finding happiness is different between apes and humans As stated earlier in this expert opinion one key to happiness involves a network of good friends [38]. However, it is not entirely clear exactly how the higher forms of satisfaction and pleasure are related to a sugar rush, winning a sports event or even sky diving, all of which augment dopamine release at the reward brain site. Recent multidisciplinary research, using both humans and detailed invasive brain analysis of animals has discovered some critical ways that the brain processes pleasure. Remarkably, there are pathways for ordinary liking and pleasure, which are limited in scope as described above in this commentary. However, there are **many brain regions**, often termed hot and cold spots, that significantly **modulate** (increase or decrease) our **pleasure or** even **produce the opposite** of pleasure— that is disgust and fear [39]. One specific region of the nucleus accumbens is organized like a computer keyboard, with particular stimulus triggers in rows— producing an increase and decrease of pleasure and disgust. Moreover, the cortex has unique roles in the cognitive evaluation of our feelings of pleasure [40]. Importantly, the interplay of these multiple triggers and the higher brain centers in the prefrontal cortex are very intricate and are just being uncovered. Desire and reward centers It is surprising that many different sources of pleasure activate the same circuits between the mesocorticolimbic regions (Figure 1). Reward and desire are two aspects pleasure induction and have a very widespread, large circuit. Some part of this circuit distinguishes between desire and dread. The so-called pleasure circuitry called “REWARD” involves a well-known dopamine pathway in the mesolimbic system that can influence both pleasure and motivation. In simplest terms, the well-established mesolimbic system is a dopamine circuit for reward. It starts in the ventral tegmental area (VTA) of the midbrain and travels to the nucleus accumbens (Figure 2). It is the cornerstone target to all addictions. The VTA is encompassed with neurons using glutamate, GABA, and dopamine. The nucleus accumbens (NAc) is located within the ventral striatum and is divided into two sub-regions—the motor and limbic regions associated with its core and shell, respectively. The NAc has spiny neurons that receive dopamine from the VTA and glutamate (a dopamine driver) from the hippocampus, amygdala and medial prefrontal cortex. Subsequently, the NAc projects GABA signals to an area termed the ventral pallidum (VP). The region is a relay station in the limbic loop of the basal ganglia, critical for motivation, behavior, emotions and the “Feel Good” response. This defined system of the brain is involved in all addictions –substance, and non –substance related. In 1995, our laboratory coined the term “Reward Deficiency Syndrome” (RDS) to describe genetic and epigenetic induced hypodopaminergia in the “Brain Reward Cascade” that contribute to addiction and compulsive behaviors [3,6,41]. Furthermore, ordinary “liking” of something, or pure pleasure, is represented by small regions mainly in the limbic system (old reptilian part of the brain). These may be part of larger neural circuits. In Latin, hedus is the term for “sweet”; and in Greek, hodone is the term for “pleasure.” Thus, the word Hedonic is now referring to various subcomponents of pleasure: some associated with purely sensory and others with more complex emotions involving morals, aesthetics, and social interactions. The capacity to have pleasure is part of being healthy and may even extend life, especially if linked to optimism as a dopaminergic response [42]. Psychiatric illness often includes symptoms of an abnormal inability to experience pleasure, referred to as anhedonia. A negative feeling state is called dysphoria, which can consist of many emotions such as pain, depression, anxiety, fear, and disgust. Previously many scientists used animal research to uncover the complex mechanisms of pleasure, liking, motivation and even emotions like panic and fear, as discussed above [43]. However, as a significant amount of related research about the specific brain regions of pleasure/reward circuitry has been derived from invasive studies of animals, these cannot be directly compared with subjective states experienced by humans. In an attempt to resolve the controversy regarding the causal contributions of mesolimbic dopamine systems to reward, we have previously evaluated the three-main competing explanatory categories: “liking,” “learning,” and “wanting” [3]. That is, dopamine may mediate (a) liking: the hedonic impact of reward, (b) learning: learned predictions about rewarding effects, or (c) wanting: the pursuit of rewards by attributing incentive salience to reward-related stimuli [44]. We have evaluated these hypotheses, especially as they relate to the RDS, and we find that the incentive salience or “wanting” hypothesis of dopaminergic functioning is supported by a majority of the scientific evidence. Various neuroimaging studies have shown that anticipated behaviors such as sex and gaming, delicious foods and drugs of abuse all affect brain regions associated with reward networks, and may not be unidirectional. Drugs of abuse enhance dopamine signaling which sensitizes mesolimbic brain mechanisms that apparently evolved explicitly to attribute incentive salience to various rewards [45]. Addictive substances are voluntarily self-administered, and they enhance (directly or indirectly) dopaminergic synaptic function in the NAc. This activation of the brain reward networks (producing the ecstatic “high” that users seek). Although these circuits were initially thought to encode a set point of hedonic tone, it is now being considered to be far more complicated in function, also encoding attention, reward expectancy, disconfirmation of reward expectancy, and incentive motivation [46]. The argument about addiction as a disease may be confused with a predisposition to substance and nonsubstance rewards relative to the extreme effect of drugs of abuse on brain neurochemistry. The former sets up an individual to be at high risk through both genetic polymorphisms in reward genes as well as harmful epigenetic insult. Some Psychologists, even with all the data, still infer that addiction is not a disease [47]. Elevated stress levels, together with polymorphisms (genetic variations) of various dopaminergic genes and the genes related to other neurotransmitters (and their genetic variants), and may have an additive effect on vulnerability to various addictions [48]. In this regard, Vanyukov, et al. [48] suggested based on review that whereas the gateway hypothesis does not specify mechanistic connections between “stages,” and does not extend to the risks for addictions the concept of common liability to addictions may be more parsimonious. The latter theory is grounded in genetic theory and supported by data identifying common sources of variation in the risk for specific addictions (e.g., RDS). This commonality has identifiable neurobiological substrate and plausible evolutionary explanations. Over many years the controversy of dopamine involvement in especially “pleasure” has led to confusion concerning separating motivation from actual pleasure (wanting versus liking) [49]. We take the position that animal studies cannot provide real clinical information as described by self-reports in humans. As mentioned earlier and in the abstract, on November 23rd, 2017, evidence for our concerns was discovered [50] In essence, although nonhuman primate brains are similar to our own, the disparity between other primates and those of human cognitive abilities tells us that surface similarity is not the whole story. Sousa et al. [50] small case found various differentially expressed genes, to associate with pleasure related systems. Furthermore, the dopaminergic interneurons located in the human neocortex were absent from the neocortex of nonhuman African apes. Such differences in neuronal transcriptional programs may underlie a variety of neurodevelopmental disorders. In simpler terms, the system controls the production of dopamine, a chemical messenger that plays a significant role in pleasure and rewards. The senior author, Dr. Nenad Sestan from Yale, stated: “Humans have evolved a dopamine system that is different than the one in chimpanzees.” This may explain why the behavior of humans is so unique from that of non-human primates, even though our brains are so surprisingly similar, Sestan said: “It might also shed light on why people are vulnerable to mental disorders such as autism (possibly even addiction).” Remarkably, this research finding emerged from an extensive, multicenter collaboration to compare the brains across several species. These researchers examined 247 specimens of neural tissue from six humans, five chimpanzees, and five macaque monkeys. Moreover, these investigators analyzed which genes were turned on or off in 16 regions of the brain. While the differences among species were subtle, **there was** a **remarkable contrast in** the **neocortices**, specifically in an area of the brain that is much more developed in humans than in chimpanzees. In fact, these researchers found that a gene called tyrosine hydroxylase (TH) for the enzyme, responsible for the production of dopamine, was expressed in the neocortex of humans, but not chimpanzees. As discussed earlier, dopamine is best known for its essential role within the brain’s reward system; the very system that responds to everything from sex, to gambling, to food, and to addictive drugs. However, dopamine also assists in regulating emotional responses, memory, and movement. Notably, abnormal dopamine levels have been linked to disorders including Parkinson’s, schizophrenia and spectrum disorders such as autism and addiction or RDS. Nora Volkow, the director of NIDA, pointed out that one alluring possibility is that the neurotransmitter dopamine plays a substantial role in humans’ ability to pursue various rewards that are perhaps months or even years away in the future. This same idea has been suggested by Dr. Robert Sapolsky, a professor of biology and neurology at Stanford University. Dr. Sapolsky cited evidence that dopamine levels rise dramatically in humans when we anticipate potential rewards that are uncertain and even far off in our futures, such as retirement or even the possible alterlife. This may explain what often motivates people to work for things that have no apparent short-term benefit [51]. In similar work, Volkow and Bale [52] proposed a model in which dopamine can favor NOW processes through phasic signaling in reward circuits or LATER processes through tonic signaling in control circuits. Specifically, they suggest that through its modulation of the orbitofrontal cortex, which processes salience attribution, dopamine also enables shilting from NOW to LATER, while its modulation of the insula, which processes interoceptive information, influences the probability of selecting NOW versus LATER actions based on an individual’s physiological state. This hypothesis further supports the concept that disruptions along these circuits contribute to diverse pathologies, including obesity and addiction or RDS.

#### [2] Only natural observable moral facts exist:

#### Papineau 07, David Papineau, “Naturalism,” Stanford Encyclopedia of Philosophy, 2007//SS Moore took this argument to show that moral facts comprise a distinct species of non-natural fact. However, any such non-naturalist view of morality faces immediate difficulties, deriving ultimately from the kind of causal closure thesis discussed above. If all physical effects are due to a limited range of natural causes, and if moral facts lie outside this range, then it follow that moral facts can never make any difference to what happens in the physical world (Harman, 1986). At first sight this may seem tolerable (perhaps moral facts indeed don't have any physical effects). But it has very awkward epistemological consequences. For beings like us, knowledge of the spatiotemporal world is mediated by physical processes involving our sense organs and cognitive systems. If moral facts cannot influence the physical world, then it is hard to see how we can have any knowledge of them

#### Two implications: A) Substantively affirms since we need the natural world to derive moral facts from it, so environmental destruction eliminates our ability to perceive and interact with those facts to create morality. B) Proves Util since we physically know the pleasure is good and pain is bad.

#### 3] Lexical Prerequisite – suffering creates lifelong conditions and threats on life that preclude the ability of actors being able to engage in other ethical evaluations since they are in a constant state of crisis.

#### 4] Actor specificity:

#### A] Governments must aggregate since every policy benefit some and harms others, which also means side constraints freeze action.

#### B] States lack wills or intentions since policies are collective actions. Actor-specificity comes first since different agents have different ethical standings. Link turns calc indites because the alt would be *no* action.

#### 5] No act-omission distinction—governments are responsible for everything in the public sphere, so inaction is implicit authorization of action: they have to yes/no bills, which means everything collapse to aggregation.

#### 6] No intent-foresight distinction— If we foresee a consequence, then it becomes part of our deliberation which makes it intrinsic to our action since we intend it to happen.

**[7] Use epistemic modesty for evaluating the framework debate: that means compare the probability of the framework times the magnitude of the impact under a framework. Prefer:**

**[A] Clash—disincentives debaters from going all in for framework which means we get the ideal balance between topic ed and phil ed—it’s important to talk about contention-level offense**

**[C] Action under one framework isn’t exclusive of action under another.**

Enoch ‘11, David. "Giving Practical Reasons." Philosophers Imprint. The Hebrew University, Mar. 2011. Web. <https://quod.lib.umich.edu/cgi/p/pod/dod-idx/giving-practical-reasons.pdf?c=phimp;idno=3521354.0011.004>.

I should also note something it does not take for the role played by the given reason in the receiver’s practical reasoning to be appropriate. **It is not required that the role be**, as it were, **ultimate**. In other words, it is perfectly consistent with robust reason-giving thus understood that there be a further, fuller, perhaps more basic story of why it is that B does and should take A’s relevant intentions as reason-giving. **Perhaps**, for instance, **B is a simple utilitarian**, and let’s further assume that simple utilitarianism is indeed the true fundamental story about all reasons for action. **If so, B will take A’s request as a reason to [act] if** and only if, and because, **doing so will maximize utility**. But this does not mean that she doesn’t take, in those cases, A’s request to be a (nonultimate) reason. The crucial question is whether the ultimate (or perhaps just more basic) story here is one that goes through the reasongiver’s special intentions identified above (and the receiver’s recognition thereof), as in the case of the utilitarian request-receiver, in which case we may have a case of robust reason-giving; or whether the more basic story here works directly, leaving no role for the specific intentions that make reason-giving robust (as is the case in the dictator’s child example). Cases of this latter type are not, on the account I’m suggesting here, cases of robust reason-giving. And **this seems to me the independently plausible result** here. Notice that the intentions mentioned above do not include something like the intention that B actually Φs. This is so because **A can give B a reason to [act] Φ knowing well that other reasons may be relevant, including possibly stronger reasons not to [act] Φ**.52 Indeed, it seems to me A can make a genuine request that B Φs, all the time acknowledging that if certain other considerations bear on the case, B should not (all things considered) Φ. We do not want to restrict robust reason-giving to just the cases in which the reason-giver intends the given reason to outweigh all others. For similar reasons, **A need not intend that the given reason be the only reason** for which B Φs.

#### Extinction first –

#### 1 – Forecloses future improvement – we can never improve society because our impact is irreversible

#### 2 – Turns suffering – mass death causes suffering because people can’t get access to resources and basic necessities

#### 3 – Moral obligation – allowing people to die is unethical and should be prevented because it creates ethics towards other people

#### 4 – Objectivity – body count is the most objective way to calculate impacts because comparing suffering is unethical

#### 5 – Moral uncertainty – if we’re unsure about which interpretation of the world is true – we ought to preserve the world to keep debating about it

### UV

#### 1] 1AR theory is legit – anything else means infinite abuse – drop the debater – 1AR are too short to make up for the time trade-off – no RVIs – 6 min 2NR means they can brute force me every time – competing interps – otherwise the 2NR could drown the aff in arguments while playing defense. Aff theory first – much larger strategic loss – ¼ of the 1AR vs. 1/7 of the 1NC.

#### Permissibility and presumption affirm –

**A] neutrality- otherwise we would not be able to justify morally neutral actions like drinking water since there isn’t a prohibition and we would needlessly have to prove an obligation.**

**B] Trivialism- statements are true until proven false, if I told you my name you’d believe me.**

#### C] Affirming is harder – that was above

#### D] Negation Theory- Negating requires a complete absence of an existing obligation

Negate [is to]: to deny the existence of

That’s Dictionary.com- “Negate” https://www.dictionary.com/browse/negate.

#### Scenario analysis is pedagogically valuable – enhances creativity and self-reflexivity, deconstructs cognitive biases and flawed ontological assumptions, and enables the imagination and creation of alternative futures.

**Barma et al. 16** – (May 2016, [Advance Publication Online on 11/6/15], Naazneen Barma, PhD in Political Science from UC-Berkeley, Assistant Professor of National Security Affairs at the Naval Postgraduate School, Brent Durbin, PhD in Political Science from UC-Berkeley, Professor of Government at Smith College, Eric Lorber, JD from UPenn and PhD in Political Science from Duke, Gibson, Dunn & Crutcher, Rachel Whitlark, PhD in Political Science from GWU, Post-Doctoral Research Fellow with the Project on Managing the Atom and International Security Program within the Belfer Center for Science and International Affairs at Harvard, “‘Imagine a World in Which’: Using Scenarios in Political Science,” International Studies Perspectives 17 (2), pp. 1-19, <http://www.naazneenbarma.com/uploads/2/9/6/9/29695681/using_scenarios_in_political_science_isp_2015.pdf>)/TK

Over the past decade, the “cult of irrelevance” in political science scholarship has been lamented by a growing chorus (Putnam 2003; Nye 2009; Walt 2009). Prominent scholars of international affairs have diagnosed the roots of the gap between academia and policymaking, made the case for why political science research is valuable for policymaking, and offered a number of ideas for enhancing the policy relevance of scholarship in international relations and comparative politics (Walt 2005,2011; Mead 2010; Van Evera 2010; Jentleson and Ratner 2011; Gallucci 2012; Avey and Desch 2014). Building on these insights, several initiatives have been formed in the attempt to “bridge the gap.”2 Many of the specific efforts put in place by these projects focus on providing scholars with the skills, platforms, and networks to better communicate the findings and implications of their research to the policymaking community, a necessary and worthwhile objective for a field in which theoretical debates, methodological training, and publishing norms tend more and more toward the abstract and esoteric.

Yet enhancing communication between scholars and policymakers is only one component of bridging the gap between international affairs theory and practice. Another crucial component of this bridge is the generation of substantive research programs that are actually policy relevant—a challenge to which less concerted attention has been paid. The dual challenges of bridging the gap are especially acute for graduate students, a particular irony since many enter the discipline with the explicit hope of informing policy. In a field that has an admirable devotion to pedagogical self-reflection, strikingly little attention is paid to techniques for generating policy-relevant ideas for dissertation and other research topics. Although numerous articles and conference workshops are devoted to the importance of experiential and problem-based learning, especially through techniques of simulation that emulate policymaking processes (Loggins 2009; Butcher 2012; Glasgow 2012; Rothman 2012; DiCicco 2014), little has been written about the use of such techniques for generating and developing innovative research ideas.

This article outlines an experiential and problem-based approach to developing a political science research program using scenario analysis. It focuses especially on illuminating the research generation and pedagogical benefits of this technique by describing the use of scenarios in the annual New Era Foreign Policy Conference (NEFPC), which brings together doctoral students of international and comparative affairs who share a demonstrated interest in policy-relevant scholarship.3 In the introductory section, the article outlines the practice of scenario analysis and considers the utility of the technique in political science. We argue that scenario analysis should be viewed as a tool to stimulate problem-based learning for doctoral students and discuss the broader scholarly benefits of using scenarios to help generate research ideas. The second section details the manner in which NEFPC deploys scenario analysis. The third section reflects upon some of the concrete scholarly benefits that have been realized from the scenario format. The fourth section offers insights on the pedagogical potential associated with using scenarios in the classroom across levels of study. A brief conclusion reflects on the importance of developing specific techniques to aid those who wish to generate political science scholarship of relevance to the policy world.

What Are Scenarios and Why Use Them in Political Science?

Scenario analysis is perceived most commonly as a technique for examining the robustness of strategy. It can immerse decision makers in future states that go beyond conventional extrapolations of current trends, preparing them to take advantage of unexpected opportunities and to protect themselves from adverse exogenous shocks. The global petroleum company Shell, a pioneer of the technique, characterizes scenario analysis as the art of considering “what if” questions about possible future worlds. Scenario analysis is thus typically seen as serving the purposes of corporate planning or as a policy tool to be used in combination with simulations of decision making. Yet scenario analysis is not inherently limited to these uses. This section provides a brief overview of the practice of scenario analysis and the motivations underpinning its uses. It then makes a case for the utility of the technique for political science scholarship and describes how the scenarios deployed at NEFPC were created.

The Art of Scenario Analysis

We characterize scenario analysis as the art of juxtaposing current trends in unexpected combinations in order to articulate surprising and yet plausible futures, often referred to as “alternative worlds.” Scenarios are thus explicitly not forecasts or projections based on linear extrapolations of contemporary patterns, and they are not hypothesis-based expert predictions. Nor should they be equated with simulations, which are best characterized as functional representations of real institutions or decision-making processes (Asal 2005). Instead, they are depictions of possible future states of the world, offered together with a narrative of the driving causal forces and potential exogenous shocks that could lead to those futures. Good scenarios thus rely on explicit causal propositions that, independent of one another, are plausible—yet, when combined, suggest surprising and sometimes controversial future worlds. For example, few predicted the dramatic fall in oil prices toward the end of 2014. Yet independent driving forces, such as the shale gas revolution in the United States, China’s slowing economic growth, and declining conflict in major Middle Eastern oil producers such as Libya, were all recognized secular trends that—combined with OPEC’s decision not to take concerted action as prices began to decline—came together in an unexpected way.

While scenario analysis played a role in war gaming and strategic planning during the Cold War, the real antecedents of the contemporary practice are found in corporate futures studies of the late 1960s and early 1970s (Raskin et al. 2005). Scenario analysis was essentially initiated at Royal Dutch Shell in 1965, with the realization that the usual forecasting techniques and models were not capturing the rapidly changing environment in which the company operated (Wack 1985; Schwartz 1991). In particular, it had become evident that straight-line extrapolations of past global trends were inadequate for anticipating the evolving business environment. Shell-style scenario planning “helped break the habit, ingrained in most corporate planning, of assuming that the future will look much like the present” (Wilkinson and Kupers 2013, 4). Using scenario thinking, Shell anticipated the possibility of two Arab-induced oil shocks in the 1970s and hence was able to position itself for major disruptions in the global petroleum sector.

Building on its corporate roots, scenario analysis has become a standard policymaking tool. For example, the Project on Forward Engagement advocates linking systematic foresight, which it defines as the disciplined analysis of alternative futures, to planning and feedback loops to better equip the United States to meet contemporary governance challenges (Fuerth 2011). Another prominent application of scenario thinking is found in the National Intelligence Council’s series of Global Trends reports, issued every four years to aid policymakers in anticipating and planning for future challenges. These reports present a handful of “alternative worlds” approximately twenty years into the future, carefully constructed on the basis of emerging global trends, risks, and opportunities, and intended to stimulate thinking about geopolitical change and its effects.4 As with corporate scenario analysis, the technique can be used in foreign policymaking for long-range general planning purposes as well as for anticipating and coping with more narrow and immediate challenges. An example of the latter is the German Marshall Fund’s EuroFutures project, which uses four scenarios to map the potential consequences of the Euro-area financial crisis (German Marshall Fund 2013).

Several features make scenario analysis particularly useful for policymaking.5 Long-term global trends across a number of different realms—social, technological, environmental, economic, and political—combine in often-unexpected ways to produce unforeseen challenges. Yet the ability of decision makers to imagine, let alone prepare for, discontinuities in the policy realm is constrained by their existing mental models and maps. This limitation is exacerbated by well-known cognitive bias tendencies such as groupthink and confirmation bias (Jervis 1976; Janis 1982; Tetlock 2005). The power of scenarios lies in their ability to help individuals break out of conventional modes of thinking and analysis by introducing unusual combinations of trends and deliberate discontinuities in narratives about the future. Imagining alternative future worlds through a structured analytical process enables policymakers to envision and thereby adapt to something altogether different from the known present.

Designing Scenarios for Political Science Inquiry

The characteristics of scenario analysis that commend its use to policymakers also make it well suited to helping political scientists generate and develop policy-relevant research programs. Scenarios are essentially textured, plausible, and relevant stories that help us imagine how the future political-economic world could be different from the past in a manner that highlights policy challenges and opportunities. For example, terrorist organizations are a known threat that have captured the attention of the policy community, yet our responses to them tend to be linear and reactive. Scenarios that explore how seemingly unrelated vectors of change—the rise of a new peer competitor in the East that diverts strategic attention, volatile commodity prices that empower and disempower various state and nonstate actors in surprising ways, and the destabilizing effects of climate change or infectious disease pandemics—can be useful for illuminating the nature and limits of the terrorist threat in ways that may be missed by a narrower focus on recognized states and groups. By illuminating the potential strategic significance of specific and yet poorly understood opportunities and threats, scenario analysis helps to identify crucial gaps in our collective understanding of global politicaleconomic trends and dynamics. The notion of “exogeneity”—so prevalent in social science scholarship—applies to models of reality, not to reality itself. Very simply, scenario analysis can throw into sharp relief often-overlooked yet pressing questions in international affairs

**Debate SOLVES collapse and oversaturation of meaning—net benefit is our offense about scenario analysis**

Bryan S. **Turner 4**, Dean of Social Sciences at Deakin University, Australia, “Baudrillard for Sociologists,” in Forget Baudrillard?, 2004 edition, p. 80-83While, as far as one can tell, Baudrillard was not influenced by Bell’s vision of the role of technology and the media in shaping postindustrialism, he was influenced by Marshall McLuhan’s analysis (Gane 1991b:48) of the impact of new media on the transformation of modern culture, especially in The Gutenberg Galaxy (McLuhan 1967). McLuhan was particularly sensitive to the idea that we live in a processed social world where human beings live in a complete technostructure. This technological environment is carried with us as extensions of our own bodies, but McLuhan did not adopt a pessimistic view of the age of anxiety, because his ‘technological humanism’ (Kroker et al. 1984) and Catholic values committed him to the idea of the immanence of reason and the hope of an escape from the labyrinth. Indeed, a global technological system could become the basis of a universalistic culture. Although he was fully aware of the sensory deprivation which he associated with the impact of the mass media, he none the less remained committed to the hope that these negative effects were not fatal. Baudrillard, who as we have noted was deeply influenced by McLuhan’s idea that **the content of messages was** relatively **unimportant in relation to their form**, has embraced a very **nihilistic position** with respect to our **processed environment**.¶ Baudrillard’s pessimistic view of the fissure in the historical development of the modern is based on his view of the masses. Baudrillard’s analysis of the masses is a product of the Situationist responses to the May events of 1968, when it became increasingly obvious that the critical social movements of modern society would not be dominated by Marxist theory or directed by a vanguard of the working class. The crisis of May 1968 had not been predicted by Marxism or by mainstream sociology, but they did validate the claims of Situationists like Guy Debord in the journal Internationale Situationiste. However, if the crisis had been unanticipated by conventional political analysis, then the sudden collapse of the students’ and workers’ movements of 1968 found no easy explanation in the framework of mainstream social sciences.¶ Baudrillard’s concept of the inexplicable nature of the mass depend a great deal on the unusual circumstances surrounding the May events. By 1973 with the publication of The Mirror of Production (Baudrillard 1975), Baudrillard was already moving away from an orthodox Marxist view of production, arguing that Marxism, far from being an external critique of capitalism, was merely a reflection or mirror of the principal economistic values of capitalism. **Instead of engaging in the production of meaning**, a subversive, oppositional movement would have to challenge the system from the point of view of **meaninglessness**. Subversion would have to rob the social system of significance. In taking this stand, Baudrillard followed the Situationist claim that whatever can be represented can be controlled (Plant 1992:137). The mass events of 1968 offered a promise of the nonrepresentational moment, the pure event of authenticity, which could not be explained, and therefore could not be manipulated. Baudrillard, in dismissing Marxist theory as a means of representing events, sought to replace the idea of a mode of production with a mode of disappearance.¶ In taking this attitude towards modern social movements, Baudrillard’s argument also rests on the various meanings of the word ‘mass’. Baudrillard is thus able to make allusions to the idea of physical substance, matter, the majority and the electrical meaning of earth. The translator’s note to In the Shadow of the Silent Majority points out that faire masse can mean to form a majority and to form an earth. Baudrillard argues by allusion that the mass absorbs the electrical charges of social and political movements; the mass thus neutralizes the electrical charge of society. This use of allusion, parody and irony is typical of Baudrillard’s mode of analysis, which is a type of sociological poetics, a style which is likely to make sociologists feel uncomfortable (Gane 199la:193). There is here also a continuity with the style of Dada and the Situationists. The poetic and striking character of Baudrillard’s style **has no counterpart in professional social science**, least of all in the British context.¶ Baudrillard’s ‘sociological fictions’ (1990a:15) are striking and challenging, but they **are not** ultimately **convincing**. Arguments which depend on allusion, allegory and similar rhetorical devices are decorative but they are **not** necessarily **powerful**. The notion of ‘mass society’ already has a clearly worked out sociological critique. The idea of ‘mass society’ might have been relevant in describing the new markets which were created in the post-war period with the advent of innovative technologies, which had the immediate effect of lowering prices and making commodities available to a mass audience. However, the trend of sociological analysis in the last two decades has been to assert that mass audiences have been broken down into more selectively constructed niches for more individualized products. It is controversial to argue that industrialization necessarily produces a mass society, characterized by a common culture, uniform sentiments or an integrated outlook. The idea of a mass society was often associated with the notion that the decline of individualism would produce a directionless mass as the modern equivalent of the eighteenthcentury mob. Critical theorists like Adorno and Marcuse associated the massification of society with authoritarianism and a potential for fascism. Of course, Baudrillard’s version of mass society is based on a particular **view of the mass media creating a hyperreality** in which the real has been absorbed by the hyperreal; **meaning has imploded on itself**. Although Baudrillard’s analysis of hyperreality is postcritical (Chen 1987), he does adopt in practice a critical position towards American civilization, which is the extreme example of massification. Rather like critical theorists, Baudrillard believes that the (bourgeois) individual has been sucked into the negative electrical mass of the media age. However, **sociological research** on mass audiences shows that **there is no ground for believing that media messages are received, consumed or used in any standardized manner**, and the majority of social scientists working on culture have attempted to argue that cultural objects in the age of the mass media are appropriated, transformed and consumed **in diverse forms and according to various practices** (de Certeau 1984). In fact, sociologists, largely inspired by the Situationists, have argued that everyday life is resistant to massification and that the concrete reality of everyday life-situations is the principal arena within which opposition to massification can be expected. Everyday life was regarded by both Guy Debord and Henri Lefebvre (1991) as the foundation of authenticity. **Baudrillard**, by arguing that criticism belongs to the period of modernism and not to the age of hyperreality, has **ruled out opposition to the system**, at least **at the level of public debate and formal politics.**