

The Neo-Neo Debate in Understanding the Geopolitics of Outer Space

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<https://www.e-ir.info/2020/09/25/neo-neo-debate-in-understanding-the-geopolitics-of-outer-space/>

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Outer space is developing as the next domain of Geopolitics in this century. Space exploration, which began after the 1950s initially benefitted the scientific world. Later the increased dependence on outer space by the space-faring nations, for surveillance, reconnaissance, and telecommunication purposes in one way or another increased the nation's pride. Soon, the outer space created an impact in the field of geopolitics. With the increasing impact of outer space in geopolitics and the many theories that have been put forward by scholars like Everett Dolman and David Deudney, outer space is today considered as the next critical domain. Many International Relations theories have been explaining this developing domain of geopolitics with varying perspectives. In this point, the fact that when one considers the geopolitics of outer space, it is very evident that events in the domain can be well explained in a neo-realist perspective, where the countries are competing for power, rather than the neo-liberal perspective, where the cooperation between the countries is given more emphasis. Since outer space is considered as an evolving and dynamic domain the relevance of the neo-realism and neoliberalism debate gathers much importance. Space is an entity that can be a source of a multitude of possible interpretations that are ambiguous or incompatible, and these differing interpretations led to the development of different political interpretations. It has been argued by scholars that no genuine "debate" as such has been done in the domain, related to the theories of International Relations, except neo-realism and neo-liberalism debate; nevertheless, the idea of clearly distinct theories is analytically useful in allowing comparison of different perspectives and relating them to different policy implications.^[1]

Neo-realism and neo-liberalism are the two main theoretical paradigms in International Relations. Neo-realism put forth by Kenneth Waltz argues that states deeply care about the balance of power and compete among themselves either to gain power at the expense of others or at least to make sure they do not lose power. On the other hand, the central concern of neoliberalism involves how to achieve cooperation among states and other actors in the international system. According to Keohane, he argues that "the policies followed by one government are regarded by its partners as facilitating the realization of their own objectives." Both being state-centric, has concerns regarding the explanation of stability within an anarchical system. While neo-liberalism supports cooperation between the states through international institutions, neo-realism stands for cooperation, with relative gain between them in the international system. While neo-realist looks for power in anarchy, neo-liberals view cooperation as a key to survive in a better way and prosper in anarchy. Wendt's statement gains much importance, as in both cases, certain roles and behaviors dominate the system at different points of time.^[2] While the powerful states were focusing much on competition in outer space, alongside cooperating with other countries, with their increased technological, scientific, financial, and political capabilities, those states who thought about the practical applicability of the space activities, had a contrasting emphasis on cooperation.

Key elements of Neo-Realism and Neo-Liberalism debate:

As the name suggests, the neo-neo debate in International Relations is a debate that exists between the scholars of neo-realist and neo-liberal theories. Though the scholars on both sides of the debate pursue different opinions, it cannot be argued that the debate is completely between two polar-opposite worldviews. They share assumptions that focus on similar questions and they agree on a very similar though-not identical set of assumptions, that is, in short, there exists both similarities and disparities between neo-realism and neo-liberalism.³ However, according to

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the arguments made by the scholars, the only significant achievement of this debate is the detailed analysis of both theories and what each side perceives to be faults of the other.^[3] Neo-realists and neo-liberal institutionalists reach their conclusions from the structural conditions set by an anarchic international system. Also, neo-realists explain that the conflict occurs due to the absence of order within the states, while the neoliberals highlight that the possibilities for cooperation is been constrained by anarchy but, it is not made impossible. One of the biggest points within the neo-neo debate is the extent to which each of these two theories considers the notion of cooperation within the world systems.^[4] The role of institutions also becomes vital in this debate. Neo-liberals argue that even when anarchy constrains the need of the states to cooperate, they still can work together, with the assistance of international institutions, which is also a way of managing anarchy, by finding common grounds in order to avoid war. However, neo-realists tend to regard the effectiveness of regimes as more narrowly circumscribed and argue that international institutions are unable to mitigate anarchy's constraining effects on inter-state cooperation.^[5]

Kenneth Waltz has argued that in the absence of a higher authority and the interest to survive, states are left with the choice of competing for power in the international realm.^[6] Being labeled as a "defensive realist", Waltz also argues that the state should not seek hegemony; but should ensure that other states are not gaining power at their expense. According to the neoliberal institution, the concept of interdependence and the hegemonic stability are the two historical developments put forth by them. The concept of interdependence talks about the development of common interests between the states that can be obtained through the successful cooperation between states. Hegemonic stability talks about the different international systems like the United Nations, where the great power states provide stability, either through economic resources or others. The cross-national interaction between the states in neo-liberalism poses a challenge to the authority of the governments. Robert Keohane has characterized his arguments of neoliberalism as a variant of realism in his book, *After Hegemony* (1984). This characterization initiated a scholarly debate between Robert Keohane and Joseph Grieco, over whether the neo-realist assumptions were correctly adopted and applied.^[7] This emerged as the neo-neo debate.

It is also important to evaluate the states' behavioral model under the neo-realist and neo-liberal institutions. It has been argued by scholars, from a neo-realist perspective, the neo-liberals see states as rational "egoistic value maximizers" who are concerned about their own gains and losses and neo-realists insist that state's willingness to cooperate is interdependent with how the other states also do and if other gains more, it might even diminish their willingness.^[8] Also, while talking about the state behavior under the neo-neo debate, it should be noted that the neoliberals consider absolute gains, neo-realists look for relative gains in the state. Another element that distinguishes the neo-realists from the neo-liberal perspective is that neo-realists view conflict as something which connotes the situation of the state behavior while, the neoliberals identify cooperation in large part, due to the role played by institutions and regimes.

Both the institutions exist in an anarchic system, but as highlighted earlier the way they accept anarchy is different. In neo-realism, the states must survive and must assume the worst about the intentions of other states and compete for power with them, which implies the security dilemma. In neoliberalism, the anarchy is considered a vacuum, which must be filled by processes and institutions.^[9] On consolidating the several similarities and differences in the neo-realist and neo-liberal perspective, one can analyze it in several ways. In the international system the neo-liberals and neo-realists exist on the base of anarchy, but the levels in which these institutions accept anarchy differs. One can interpret the interactions between states in these institutions as either competitive as in a neo-realist perspective or cooperative as in a neoliberal perspective. Neo-realists agree that cooperation is possible between the states, the way neo-liberals consider. But unlike the neo-liberals, neo-realists consider that this cooperation is difficult to implement.

As mentioned earlier, neo-realists consider relative gains in state behavior, while the neoliberals insist on absolute gains, which are beneficial to its participants. In the case of neorealism, as mentioned earlier, relative gain does not mean gaining power, but also ensuring that other actors do not gain power at their expense. In neo-liberalism, the absolute gain attained by cooperation between the states needs to be transparent. The actors in neoliberalism use game theory, like the prisoner's dilemma for ensuring this transparency. Both neo-realists and neoliberal institutionalists consider national power and economic well-being as the major priorities of a state. But neo-realist gives more emphasis on national power, while the neo-liberals give more importance to economic well-being. This

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can be given more emphasis by the two historical development put forth by neo-liberal institutions, the concept of interdependence, and hegemonic stability, where according to Mearsheimer economic self-interest is the motivation behind hegemonic stability.^[10] Finally, neo-realists acknowledge the influence and impact of international organizations in international relations but believe that the neo-liberals exaggerate their significance.^[11]

Anarchy is one of the main concepts that the neo-realism-neo-liberalism debate considers. Moreover, the main contention over the extent of cooperation and conflict only encompasses one dimension, while categorically leaving out multiple other angles.^[12] The neo-realism-neoliberalism debate cannot be considered as an essential debate in international relations, but through the proper acknowledgment of the limitations of the debate and having its fundamental assumptions challenged, the neo-neo debate can represent a useful phase among the theories of international relations. It is the anarchic ordering principle of the international structure that determines the neo-realist perspective in the neo-neo debate. In this context, it is important to understand the offensive and defensive neo-realism which is a subset of the existing offensive and defensive realism in the international relations theory. Also, while explaining the neoliberal institution, understanding the regime theory will enable one to understand more about the role of international institutions and regimes in creating cooperation between the countries.

Neorealism: Offensive and Defensive Realism

Neo-realism or structural realism explains the theories based on anarchy and they differ in analyzing how much of power states need in anarchy. This has led to the development of a structural theory, which is divided into two branches, defensive and offensive neo-realism. Defensive realism contends that states should acquire an appropriate amount of power necessary for them to thrive.^[13] Also, in this quest to acquire power, they should not, however, maximize their relative power. Offensive realism is when one state seeks power and influence to gain security through hegemony. Defensive realism emerges when the offensive realists upset the balance of power theory through their aggressive hegemonic expansion. Also, while defensive realism does not deny the reality of interstate conflict, nor that incentives for state expansion do exist, it contends that these incentives are sporadic rather than endemic.^[14] In order to understand the relation between offensive and defensive realism, it is also important to be aware of the Balance of Power Theory. The balance of power theory in international relations argues that states can secure their survival by preventing any other state, by gaining enough military power to dominate all others. According to this theory, the states can pursue a policy of balance of power in two ways: by increasing their own power, as when engaging in an armaments race or in the competitive acquisition of territory; or by adding to their own power that of other states, as when embarking upon a policy of alliances.^[15]

Neoliberalism: Regime Theory

As mentioned earlier, regime theory is derived from neo-liberalism and it argues about the influence of international regimes in the cooperation of states. Just like the neo-liberal institutionalists, they also assume that cooperation is possible in the anarchic system of states. Regime theory is an approach within the international relations theory, which argues about the cooperation between the states in the international regimes, and how they play a major role in mitigating international anarchy and overcoming various collective action problems among states. Different schools of thought have various analytical approaches that exist within the regime theory. In neoliberalism, however, regimes are considered as the center which facilitates international cooperation and constrains the behavior of states.^[16] According to Stephen Krasner, the regime is referred to as a set of principles, norms, rules, and decision-making procedures around which actors' expectations converge in a given area of international relations.^[17] According to regime theory, regimes help the actors to realize long-term goals and promote structure and stabilize relations, which benefits all of its members. The theory also argues in the distribution of power among its member states.

Neo-Liberal factors in Outer Space Cooperation

Before analyzing the various factors of neo-liberalism in outer space cooperation activities, it is essential to understand the several organizations and treaties that have been formed by the actors. When countries started to launch space vehicles and satellites for many purposes, security issues related to outer space started to knock on the door. There are five main treaties concerning outer space that have been passed by the United Nations, namely

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Outer Space Treaty (1967), Rescue Agreement (1968), Liability Convention (1972), Registration Convention (1976), and the Moon Agreement (1979). By 2000, PAROS, Prevention of Arms Race in Outer Space was also signed by the countries, under the United Nations. Apart from these, there is a committee in the United Nations, called the Committee on the Peaceful Uses of Outer Space (COPUOS) and the United Nations Office for Outer Space Affairs (UNOOSA), which is a part of the United Nations Secretariat. Also, institutions like the European Space Agency (ESA), which comes under the European Union, is a major example of cooperative activities among the countries in space.

All these treaties and organizations have been clubbed under a term called "Space Law." Space law can be described as the body of law governing space-related activities, which comprises of a variety of international agreements, treaties, conventions, and the United Nations General Assembly resolutions.^[18] This in International Relations theory can be considered as a regime, which has been discussed earlier. It is also important to note that several scholars have highlighted the concept of countries coming together, to cooperate and initiate space programs. The development of a special space agency that would look after the space order and the equitable utilization and exploration of space activities has been mentioned by different scholars.^[19] All these points towards the main characteristics of the neo-liberal institutionalism, that is the cooperation between the states and the absolute gains, which is the outcome of the cooperation between them.

The Space Age, which made its mark with the launch of Sputnik I in 1957, brought out the hegemonic nature of the Cold War rivalry that existed at that time. Through this one can easily identify the neo-realist perspective that prevailed during the beginning of space explorations. The urge of competition among the countries, mainly the United States of America and the Soviet Union, and the tense competition that existed between them gives a very clear picture of the neo-realist ideology that existed in the beginning. But with the analysis that had been made above, it can be highlighted that the neo-liberal institution had its focus on national space policies and the effects of the international organizations and regimes in this domain. Scholars had been trying to explain the geopolitics of outer space under the neo-liberal ideology. By May 1972, the United States of America and the Soviet Union signed on the "Agreement Concerning Cooperation in the Exploration and Use of Outer Space for Peaceful Purposes", agreeing to cooperate in a number of aspects of space science.^[20] Neo-liberalism in outer space explains the effects of formal and informal space-related regimes, especially among democracies, as well as increasing interdependence in space and spillover effects from the space sector to other sectors.^[21] Also through the commercialization of the space sector, more possibilities for cooperation are available. SpaceX collaborating with NASA of the United States is an example of this. Recently SpaceX even sent NASA astronauts to space, which is major cooperation with the private sector.^[22] Similarly, many space agencies have been cooperating with each other for civilian purposes like the European Space Agency cooperating with China's Space Station for remote sensing called the Dragon program.^[23]

The international regimes and organizations had a major role in creating international cooperation between the states in the space field. A major driver of the development of neoliberalism in the 1980s was the fact that the levels of international cooperation were much higher than that could be explained by neo-realism.^[24] Several scholars who use neo-liberal institutionalism in explaining the cooperation in outer space highlights that the international organizations played an important role in the operation of sets of principles, norms, rules, and decision-making procedures. It should also be noted in this context that during the 1980s, the idealist conception of a total ban on military space systems, which was a myth named "space demilitarization", moved away to a more neoliberal account aiming at constraining the military use of space by promoting inter-state cooperation and commitment towards regulatory treaties.^[25] Even when all these cooperative activities and initiatives that have been carried out under a neo-liberal institutionalism framework, lately with the increase of actors in the outer space domain and the stunning achievements of the manned and robotic space explorations, the hegemonic use of space has itself being dominating.^[26]

The Outer Space Treaty of 1967 is the first formal regime for outer space. Many informal regimes have also been effective in the cooperation of actors in outer space. With the establishment of this treaty, outer space was considered as a "neutral domain" and it was accepted as a domain free of nuclear weapons and other weapons of mass destruction. The regime that was established to coordinate the radio-frequency usage between the satellite users is an example of this. Radio frequencies that were transmitted to Earth by the satellite and the use of the same

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frequencies might result in mutual communication disruption. To avoid this interference between satellites, eventually, a regime was established called the International Telecommunication Union, which coordinates not only the frequency usage but also allocates orbital slots for each satellite.^[27] Thus, it can be considered that the outer space domain has a lot that can be explained from a neoliberal perspective and countries want to cooperate in this domain and wants to avoid conflicts.

Geopolitics of Outer space from a Neo-Realist perspective

Though there have been several ways to put a cooperative order in the outer space affairs, what the outer space as a domain is witnessing today, is the competition between the countries. Be it regarding civilian programs or militarization and weaponization of space, every part of the space is being contested today. It should also be highlighted at this point that at the beginning, the rivalry that the United States and the Soviet Union had during the Cold War period, acted as a catalyst in increasing the space explorations, activities, and related technologies that were spiraling up. The two theories that have been formulated by the strategists, Everett Dolman and David Deudney regarding the geopolitics of outer space contain more emphasis in this context. According to the theory put forth by Everett Dolman, he argues that the great powers tend to dominate the Earth, through the competitive mastery of outer space.^[28] In the article, "New Frontiers, Old Realities", by Dolman, it has also mentioned that the outer space is a domain, where the states are not ready to compromise.^[29] Just like any other geopolitical theories of Mahan and Mackinder, Dolman considers, the space as the heartland. He argues that by gaining control over this heartland, the outer space, one can gain control all over the world. The other theory about the geopolitics of outer space by David Deudney talks about controlling space. He argues that effective control over the space enables a state to attain, planet-wide hegemony, which is according to Deudney, is more powerful and irresistible than the control over any other domain.^[30] Thus, it has made it very obvious that, though there are many cooperative activities that the countries have been involved regarding the protection and safe usage of outer space and its resources, the competition between the countries in the domain exists.

Initially, the realist perspective was able to explain the development of the Space Age, which involved the rivalry between the United States and the Soviet Union. But in course of time, the neo-realist perspective gives a wider perspective about what is happening in the outer space arena. The absence of the world government and the increased rate of the arms race in space by the countries creates a security dilemma, which makes the other countries increase their own security under defense efforts which were legitimate and non-threatening. On the contrary, this one act of a state made the others hostile. From the classical realist perspective, the space race is explained by the competition for power between the superpowers, but the "power" in question is a multifaceted amalgam of different forces ranging from tangible military capability to unquantifiable degrees of prestige.^[31] In this point, it is of much importance to note that, during the 1950s, the possession of the nuclear weapons by the countries, somewhat maintained the balance of power in the conventional warfighting methods, and therefore a superpower competition in space grew as an attractive alternative in flaunting the relative power capabilities of one country.

With the extent of opportunities and the increasing importance of space in the lives of man, the inevitability and urge to control space, is an important level of analysis. Also, the amount of power on Earth, that a state attains, through the control of space alone, is indispensable. This has been implied by the theories on outer space geopolitics as discussed earlier, that space power becomes an essential basis for gaining power on Earth. If space control shapes the foreign policy options available to states on Earth, then such theorizing about space replaces or supplements in the international system bring in an echelon of analysis among the states, which is the very essence of the neo-realist theory.^[32] The several policies that have been adopted by the space-faring countries, implies that more than cooperation, it is the competitive nature of the space domain, that is been preferred. The possession of ASAT capability by a country itself is a step towards the weaponization of space. Being destructive in nature, possession of this capability can be interpreted as either from an offensive realist perspective or a defensive realist perspective. Also, it needs to be highlighted here that the United States recently gave out the news about the development of an offensive space weapon, which might have created a possible security dilemma among other space-faring nations.^[33] Hence, on analyzing the current progression in the field of space, it can be argued that the neo-realist paradigm offers more perspectives into the future of those relationships that will exist in space. In this context, it is also much

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important to discuss that the neo-realist theory rethinks power in its offensive and defensive components, including the circumstances under which states seek security in an anarchic setting by developing military forces to deter or defend against an adversary as well as the level and types of capabilities that are deemed sufficient to ensure one state's security without threatening the other side's ability to deter or defend.^[34]

Considering the current development of outer space as a critical domain of international relations, the present space structures that are still developing can move forward with newer technologies and the rise of space power is a major possibility. Kenneth Waltz in his book, *Theory of International Politics* argues that the anarchical structure of the international system makes the states increase their security through self-help and power politics.^[35] Even scholars like Mearsheimer has argued that anarchy forces state to maximize power instead of security.³⁷

It has been also mentioned that Mearsheimer's theory has been labeled offensive while Waltz's theory has been considered defensive. Security and survival are the highest ends under anarchy and through different levels of power, that a state poses, like the military, economic and other capabilities, security can be made available. Authority in the anarchical international system is expressed through the capabilities that a state possesses, and the states compete for power to stay secure.^[36] Offensive and defensive realism have its implications on the geopolitics of outer space.

The current geopolitics of outer space highlights that the defensive neo-realism in space point towards the states seeking space security in an anarchical outer space domain. The states try to achieve this space security through self-help and space power politics. Even though space activities are common for all the states in space, the amount of space power defines the state in space and hence they compete for power in space.^[37] Let it be about a space war or space security, the power a state possesses in space is what matters even according to the theories about the geopolitics of outer space. In defensive realism, the states engage in all activities that can be expected to balance against the dominant space power. That is defensive realism enables the states to achieve a balance of power in outer space. The increasing number of countries, who are developing their scientific capabilities, to launch space vehicles from their country can be explained much well from the perspective of defensive realism. A major example of this can be the ASAT capabilities that have been acquired by the space-faring countries. As of now, apart from the United States, China, Russia, and India have demonstrated its ASAT capabilities.

Again, being contrary to this, the offensive realism suggests that anarchy in space, forces great space powers, with some offensive space capabilities at their disposal, to maximize their space power and aim for space hegemony to assure their survival.^[38] Having space domain entirely different from the currently existing domain on Earth and being still a developing domain of geopolitics, offensive realism implies that the states can ensure space hegemony by keeping their rivals from achieving the same goals as them. Latent space power, in the form of money, technology and workforce is an essential component in offensive neo-realism in outer space.^[39] The current increase in the arms race in outer space, which includes the ASAT tests, the ICBMs, and the several satellites and space vehicles that have been developed by countries, can be explained from the offensive neo-realist perspective. Even with all the treaties and regimes existing for the peaceful use of outer space resources, the countries are trying to increase their reach in space, through their improving technologies, and resources, from Earth.

Conclusion

Outer space has been developing as a critical domain of geopolitics over the past decades. With the increasing dependence on outer space for telecommunications, reconnaissance and surveillance, the importance, and the role of outer space in the life of man is gaining much momentum. Today, the development in space by a state has become a part of its national interest. The power the state gains through these developments has become a matter of the nation's pride. With the development of space and space activities carried out by the countries, many international treaties and regimes were established by world organizations and societies, for the peaceful use of outer space and its components. But, in course of time, the evolution of space militarization and weaponization and the several theories that have been developed by scholars regarding the geopolitics of outer space. All of them have implied, directly or indirectly that, more than cooperation between the countries in space, the control over the space by a country can give the position of hegemony over the whole world. The existing arms race in space and the

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increasing number of space-faring countries has created an image for space as the next critical theatre for war.

The neo-realist-neo-liberal debate is an existing international relations debate that has been evolving. Though they are considered as a result of realism and liberalism, respectively of the international relations theory, this debate has been concentrating on the anarchy of the international system. While neo-realist ideology focuses on the conflict between the countries and gaining power in the international arena, the neo-liberal institutionalists focus on cooperation between the states and the existing interdependence. Relative gain and absolute gain are the other two characteristics of the neo-realism and neo-liberalism. This ongoing debate when applied to understand the geopolitics of outer space brings in new perspectives. The neoliberal rapprochement with neo-realism produced a view of international relations in which states sought to develop and enforce international regimes based on rules and law, even while “political outcomes continue to be heavily influenced by power politics”.^[40]

Michael Sheehan in his article also argues that this dichotomy that is present between the competition and cooperation is of great importance for the space-faring countries in relation to their foreign policy interests in space. On analyzing the activities of countries in space, it can be argued that certain countries want to cooperate where there is more absolute gain, collectively and the rest, wants to preserve the current hegemonic position that they have by restricting the cooperation in those areas, which will affect their stable and predominant position in space. Those space activities include the transfer of technology with important military and commercial values, which would enhance the capabilities of another country in space. In the current context, it is the United States of America, that possess the highest technologies and capabilities in space. With the United States on one side, countries like China and Russia would try to enhance their current space technology. This would prompt other countries to enter this realm of space technology race or space arms race, despite the cooperative treaties and regimes that are existing. Hence, it can be concluded that the current Geopolitics of outer space can be interpreted much better through the neo-realism, than the neo-liberal institution, under the neo-neo debate that exists.

The geopolitics of outer space is dynamic and is a critical developing domain. The current International Relations theories that are used to explain the structure of outer space, can be replaced by other theories in the future. The future of outer space can be either competitive or cooperative in nature. Or the countries can even use the space domain to create a defensive deterrence capability between them.

Notes

[1] Michael Sheehan, “Perceptions of Space and International Political Theory”, *The International Politics of Space*, (Routledge: USA, 2007), p. 7

[2] Cameron G. Thies, “Are Two Theories Better than One? A Constructivist Model of the Neorealist-Neoliberal Debate”, *International Political Science Review (US)*, v. 25, n. 2, 2004, p. 161³ Neo-Neo Debate in International Relations, *UK Essays*, 11 August 2017, see website <https://www.ukessays.com/essays/politics/key-features-main-contributions-neo-neo-debate-politics-essay.php>, accessed on 4 April 2020

[3] Tim Pfefferle, “The Neo-Neo Debate in the International Relations Theory”, *E-International Relations*, 9 January 2014, see website <https://www.e-ir.info/2014/01/09/the-neo-neo-debate-in-international-relationstheory-progress-or-regression/>, accessed on 4 April 2020

[4] Ibid.

[5] Dominykas Broga, “What are the Key Elements of the Neo-Neo Debate”, *E-International Relations*, 12 October 2012, see website <https://www.e-ir.info/2012/10/12/what-are-the-key-elements-of-the-neo-neo-debatewhat-if-anything-is-missing/>, accessed on 4 April 2020

[6] John J Mearsheimer, “Structural Realism”, in Tim Dunne, Milja Kurki and Steve Smith (eds.), *International*

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Relations Theory (Oxford: UK, 2010), p. 83

[7] *Ibid.*, p. 119-120

[8] n. 6

[9] n. 7, p. 119

[10] n. 7, p. 120

[11] Neo-Realism v/s Neo-Liberalism: The “Neo-Neo” Debate, *Pro essay*, 16 march 2013, see website <https://www.proessay.com/neorealism-vs-neoliberalism-the-neo-neo-debate/>, accessed on 4 April 2020

[12] n. 3

[13] Arash Heydarian Pashakhanlou, “The Past, Present and Future of Realism”, *E-International Relations*, 15

January 2018, see website <https://www.e-ir.info/2018/01/15/the-past-present-and-future-of-realism/>, accessed on 7 April 2020

[14] Steven E. Lobell, “Structural Realism/Offensive and Defensive Realism”, in Nukhet Sandal, Renee Marlin-

Bennet et. al. (eds.), *Oxford Research Encyclopaedia of International Studies* (Oxford, UK: 2010), p. 54

[15] “Balance of Power”, *Encyclopaedia Britannica*, 5 November 2008, see website <https://www.britannica.com/topic/balance-of-power>, accessed on 8 April 2020

[16] Anu Bradford, “Regime Theory”, *Max Planck Encyclopaedia of Public International Law* (UK), February 2017, p. 1

[17] *Ibid.*, p. 2

[18] Space Law, Our Work, United Nations Office for Outer Space Affairs, see website <https://www.unoosa.org/oosa/en/ourwork/spacelaw/index.html>, accessed on 3 April 2020

[19] Howard J. Taubenfeld, ‘Outer Space- Past Politics and Future Policy’, *Proceedings of the American Society of International Law at Its Annual Meeting* (UK), v. 55, 1961, p. 179-180

[20] Michael Sheehan, “International Cooperation in Space”, *The International Politics of Space* (Routledge: USA, 2007), p. 64

[21] Eirik Billingsø Elvevold, ““War in Space: Why Not?” A Neorealist Analysis of International Space Politics”, *Universidade Nova de Lisboa* (Portugal), 2019, p. 29

[22] Alan Boyle, “Light this candle!’ SpaceX sends NASA astronauts on historic trip to space station in Dragon capsule”, *Geek Wire*, 30 May 2020, see website <https://www.geekwire.com/2020/spacex-nasa-reset-countdownsecond-try-launch-first-crewed-dragon/>, accessed on 2 April 2020

[23] “ESA’s Dragon cooperation with China extended to 2020”, *European Space Agency*, 8 July 2016, see website https://www.esa.int/Applications/Observing_the_Earth/ESA_s_Dragon_cooperation_with_China_extended_to_2020, accessed on 2 April 2020

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[24] n. 1, p. 14

[25] n. 1, p. 15

[26] n. 1, p. 13

[27] Jill Stuart, "Regime Theory and the study of Outer Space Politics", *E-International Relations*, 10 September 2013, see website <https://www.e-ir.info/2013/09/10/regime-theory-and-the-study-of-outer-space-politics/>, accessed on 7 April 2020

[28] Jonathan Havercroft and Raymond Duvall, "Critical Astropolitics: The Geopolitics of Space Control and the Transformation of State Sovereignty", in-Natalie Bormann and Michael Sheehan (eds.), *Securing Outer Space: International Relations Theory and the Politics of* (Routledge: USA, 2009), p. 43

[29] Everett Carl Dolman, "New Frontiers, Old Realities", *Strategic Studies Quarterly* (US), v. 6, n. 1, 2012. p. 94

[30] n. 29, p. 43

[31] n. 1, p. 8

[32] Robert Pfaltzgraff, "International Relations Theory and Space Power" in Charles D Lutes and Peter L. Hays (eds.), *Toward a Theory of Spacepower: Selected Essays* (National Defense University: Institute for National Strategic Studies: US, 2017), p. 6

[33] Joseph Trevithick, "Space Force Just Received Its First New Offensive Weapon", *The Drive*, 13 March 2020, see <https://www.thedrive.com/the-war-zone/32570/space-force-just-received-its-first-new-offensiveweapon>, accessed on 28 May 2020 website

[34] n. 33, p. 7

[35] Kenneth Waltz, "The Management of International Affairs", *Theory of International Politics* (AddisonWesley: California, 1979), p. 195 ³⁷ n. 22, p. 38

[36] Kenneth Waltz, "Anarchic Structures and Balance of Power", *Theory of International Politics* (AddisonWesley: California, 1979), p. 128

[37] n. 22, p. 45

[38] n. 22, p. 86

[39] n. 22, p. 38

[40] n. 1, p. 14

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Date written: May 2020