The Distinctive Aspect of International Relations in Human Spaceflights: Applying Securitization Theory to the Case of the International Space Station

Nicolas Berniquez-Villemaire
University of Ottawa, Canada

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Abstract

Since the end of the Apollo era, cooperation in human spaceflights between the United States and Russia has been very important. This cooperation is one of the very special, almost unique, cases of continuous cooperation between the two countries despite their generally difficult bilateral relations. The case of the International Space Station (ISS) is a very interesting one to explore since it is considered as the most important cooperation project between the two countries since WW2, all sectors combined. The question that this paper seeks to answer is how we can explain this abnormal cooperation that is the US-Russia partnership in human spaceflights, specifically in the ISS?

To answer this question, the paper is using an approach inspired by Copenhagen School and securitization theory. With the help of discourse analysis, it will be explored if this cooperation can be explained because both countries are using different and contradictory security discourses regarding their mutual relations on Earth and in outer space. Thus, it will be possible to determine if this impressive collaborative endeavour in human spaceflight is the result of a (de)securitization process.

Keywords:
International Cooperation; International Space Station, Outer Space; Human Spaceflights; Russia; United States; Securitization

"As man draws nearer to the stars, why should he not also draw nearer to his neighbour? As we push ever more deeply into the universe-probing its secrets, discovering its way--we must also constantly try to learn to cooperate across the frontiers that really divide Earth's surface."

President Lyndon B. Johnson, August 29, 1965
(Woolley and Gerhard 2018)

Introduction

Since the end of the Second World War, we can say that the bilateral relations between the United States and Russia have never been easy, to say the least. Both countries shared few easy moments (the "Détente" period, the few years following the end of the Cold War) but their relations have been marked mostly by difficult moments (Cold War, economic sanctions, geopolitical conflicts, etc.). Of course, some cases of bilateral cooperation do exist in which they have cooperated very well and are still doing so. We can think about the relatively stable situation in the Arctic and their cooperation in the International Civil Aviation Organization and on international waters. Furthermore, another very impressive cooperation area between the two countries is the one of the human spaceflights and especially with International Space Station (ISS). This paper is about this very special cooperation project of the ISS, or should we rather say the abnormal or contradictory cooperation project of the ISS. The question this paper seeks to answer is: how can we explain this abnormal cooperation that is the US-Russia partnership in human spaceflights, specifically in the ISS?

In order to answer that question, the first part of the paper is presenting a short contextualization of the different field of use of outer space and how and where the cooperation project of the ISS fits in. The second part of the paper is presenting in detail how and why we can qualify the cooperation project of the ISS as being abnormal. The third and last part is proposing to answer the research question using "speech act" and securitization theory (Waever 1995). With the help of the case of the 2014 Crimea annexation crisis, it will be demonstrated that cooperation in the ISS is not framed as vital and as a threat to national security like geopolitics and security issues on Earth even if outer space issues can be considered as an important field of (in)security. Thus, because human spaceflight issues are framed differently, it allows both Russian and American governments to cooperate extensively on the ISS like great allies while not cooperating and even acting like enemies on Earth. This approach therefore offers an alternative explanation to the regime theory argument that cooperation in space is possible because of the role played by the outer space international governance regime. Indeed, it appears more and more clear that the outer space international governance regime is not able to accomplish his functions because it is directly contributing to an uncontrolled militarization and weaponization of outer space (Johnson-Freese 2007, 109; Su 2010, 268). Another explanation why the outer space international regime cannot explain the abnormal US-Russia cooperation in the ISS is because the regime is subject to important political influences which are rending its legal structure very unstable (Dolman 2002, 133). Moreover, it also appears that this regime is today contested and important pressures are being made by the United Nations General Assembly in order to establish a new "Space Code of Conduct" on which the United States and Russia still don't have common ground (Tannenwald 2004, 370).

The Three Different Field of Use of Outer Space

Outer space is used for multiple purposes by many different countries (military, commercial and civil-scientific). At first, since 1963, outer space has been used for military purpose as a force multiplier. Space resources (imagery, communication, information, etc.) constitute precious military information multiplying the capacity of military forces on Earth (Peoples 2010, 104). The supremacy of the United States and Russia (but especially the United States) in the field of outer space military is still today uncontested despite the rise of new actors like India and China. In fact, in 2018 "the USA has the greatest number of military satellites in space, more than the rest of the world put together" (Maini 2018, 419).

The second field of use in outer space is at the commercial level. Although commercial cooperation between the two countries is more important compared to the military field, there are still many cases of major competition. It is notably the case of geolocaltion satellites (GPS) in which both countries are still using their own system and cooperation is almost non-existent. Moreover, as it is the case for the military field, commercial use of outer space is still nowadays highly dominated by the United States and to a lesser extent by China and Russia ("Satellite Database | Union of Concerned Scientists" 2021). However, with the rise of private space company like SpaceX dans Blue Origin, everything is now pointing towards a more important role of the private sector in the commercial field of use of outer space (Frankowski 2017).

Finally, the third field of use in outer space is at the civil-scientific level. It is in this field that human spaceflights occur and thus our object of study of the ISS. The impact of human spaceflight exploration on science and technology is unequivocal since the beginning of the space age. It turns out that it is in this third field that cooperation between the United States and Russia is very extensive. More concretely, the two countries have collaborated in three major projects: the Apollo-Soyuz Test Project in 1975, the Shuttle-Mir missions (1993-1998) and the ISS (1999-today). Thus, this paper seeks to understand the cooperation between these two countries at the civil-scientific level of human spaceflight using the ISS as case study.

The US-Russia Abnormal Cooperation in the ISS

Since its origins, with the connexion of the American module Unity and the Russian module Zarya, the ISS has been a fundamentally collaborative project between the two countries. The whole station has been built using the American Space Shuttle and the Russian Proton and Soyuz rockets. Furthermore, with the retirement of the American Space Shuttle in 2011, the United States and Russia have further strengthened their cooperation notably to send astronauts to the ISS. In 2007, NASA signed a $719 million contract with ROSCOSMOS (Russian Space Agency) to send astronauts to the ISS between 2011 and 2014. The goal of this contract was to help Russia to maintain the Soyuz spacecrafts which were the only one capable of sending humans in outer space. By the meantime, NASA was developing the ORION spacecraft which was supposed to enter service in 2014 to assure the transportation of astronauts to the ISS (Lardier 2007, 84). However, the ORION project is still in its development phase and now aims for outer space explorations such as a return to the Moon or the human exploration of Mars (Northon 2014). Therefore, in 2013 NASA signed another $424 million contract with ROSCOSMOS to assure astronauts transportation services to the ISS until 2017 (NASA 2013). In 2014, in order to end their reliance on Russia, the United States signed a $6.8 billion contract with two private American companies (SpaceX and Boeing) to assure the transportation of astronauts to the ISS by 2017 (Siceloff 2014). Facing the fact that SpaceX and Boeing's spacecrafts were not ready by 2017, the United States signed in 2015 another contract with ROSCOSMOS to assure American presence in the ISS until 2019 (Northon 2015). In November 2016, NASA administrator Charles Bolden and head of

ROSCOMOS Igor Komarov both declared in a joint press conference in Russia that once NASA starts flying commercial crew vehicles, both countries will continue their cooperation with flying Russian cosmonauts on US commercial spacecraft and NASA astronauts continuing to fly on Soyuz (Foust 2016). This declaration turned out to be true. In September 2020, the SpaceX Crew-1 mission carried three NASA astronauts and a JAXA astronaut to the ISS (Brown 2020). Even if it is now clear that the United States does not need to rely on the Russian Soyuz anymore, future Soyuz flights including American astronauts are still planned (Garcia 2021). Moreover, everything indicates that it is only a matter of time before the Russian fly to the ISS on American Spacecraft (Clark 2020), (Foust 2020). In addition, the cooperation between the two countries on the ISS is not just about using vehicles to get to the laboratory. Inside the ISS, the experiments going on are characterized by an important cooperation between the United States, Russia. It is notably the case with experiments on aerospace medicine (Duncan 2007), technology demonstration, microbiology, education (Hasbrook 2016) and astrophysics (Thumm 2011). In short, the cooperation between the United States and Russia on the ISS project is extensive and peaceful.

However, it is quite astonishing how this great cooperation contrasts with the reality on Earth where geopolitics and security tensions are very important between the United States and Russia. The goal of this paper is not the present an extensive portrait of US-Russia relations, but we can note that since the end of the Cold War and until the beginning of the 2000s, the geopolitical situation had improved and it could partially explain the cooperation between the two countries during the Mir-Shuttle program and the first phase of the construction of the ISS. But, since 2002, we can note important tensions and conflicts between United States and Russia that led to the difficult geopolitical and diplomatic relations that still prevail today. Thus, in 2002 the withdrawal of the United States from the ABM treaty harmed both countries' relations (Dolman 2002, 133). In 2007, their relations deteriorated notably because of the deployment of the American anti-missile shield in Poland. At that time, President Putin qualified the situation as being the most dangerous since the Cuban missile crisis in 1962 (Traynor 2007). In 2012, the mutual sanctions between the two countries intensified particularly with the Magnisky case (Camp 2012) which undermined even more their relationship. Then in 2013, with the issue of Russia accepting Edward Snowden's asylum, the United States cancelled a high-level meeting between Barack Obama and Vladimir Putin (Sonne and Entous 2013, A1). In 2014, following the annexation of Crimea by Russia, the tensions between Moscow and Washington accentuate. President Obama mentioned: "the United States has mobilized the international community in support of Ukraine to isolate Russia for its actions" (The White House 2014c) and the United States raised their heavy sanctions on Russia also affecting the property and interests of Russian political figures in the United States (The White House 2014b). Rutkin (2014, 11) also identified this contradiction regarding the Crimea events in which "this event significantly aggravated the relations between the United States and Russia on Earth in the 'real-world', but there has been no impacts on the relations between the two countries in the ISS". Under the Trump administration, sanctions continued to grow and affecting Russian defence and intelligence sectors as well as expelling diplomats (Majumdar 2018; The White House 2017; Rucker, Morello, and Hudson 2018). Even the recent election of Joe Biden is already marked by very difficult relations between the two countries. It is particularly the case since President Biden called President Putin a "killer". The Kremlin "reacted angrily, calling the comment unprecedented and describing the relationship between the two countries as very bad" (Chernova, Ullah, and Picheta 2021). Finally, to this accumulation of sanctions we can add the difficult situation in Syria where both countries favour very different interventions which contribute to harming their relations and cooperation (Sengupta 2017).

Furthermore, it is important to mention that the abnormal cooperation of the two countries in the ISS is all the more unlikely because the United States and Russia do not need to cooperate in order to realize important orbital human spaceflight projects like the construction of an orbital space station. In fact, both countries demonstrated that they are able to develop their own space station independently, autonomously and efficiently notably with the American project Skylab (1973-1979) and the Russian projects Salyut (1971-1985) and Mir (1986-2001) (Loff 2015; NASA 2016; 1997). It is also important to highlight that it is also the case for China that operated and developed alone its own space station Tiangong 2 from 2016 to 2019 (Jones 2019). How then can we understand the ISS anomaly where cooperation in outer space differs significantly from the difficult geopolitics and security situation of the two countries on Earth? This paper is proposing to use speech act and securitization theory to have a better understanding of this situation.

Desecuritization of Outer Space: Cooperation Explained Through Speech Act

This section will use the *securitization* theory from the Copenhagen school to demonstrate that the cooperation between the United States and Russia in the ISS can be understood because both countries do not use the same security speech act regarding their relations with each other in outer space from the speech act they use for their international relations on Earth. Thus, United States and Russia speech acts on Earth are posing the behaviours of each other as a vital *threat* to their national security. In that sense, the relations between the United States and Russia are *securitized* by both countries. However, United States and Russia speech acts in outer space on the ISS project are establishing that peaceful cooperation between the two countries is vital. In this case, the relations between Russia and the United States in outer space are desecuritized. To demonstrate this argument, the first part of this section will present in more details the securitization theory of the Copenhagen school and how we can apply this theoretical framework to the outer space area through an analysis of the different speech acts. Then, the second part will present an example of both the United States and Russia securitized speech acts about their difficult relations on Earth in the context of a specific event: the Crimea annexation crises in 2014. The final part will show that both countries' desecuritized speech acts about the ISS project at the same time during the 2014 crisis are totally different from their speech acts on Earth which enable this important cooperation.

Using Securitization and Copenhagen School to Explain Outer Space Cooperation

The concepts of *securitization* and *speech act* are associated with the Copenhagen School in critical security studies. Two of the most important authors contributing to this school are notably Ole Waever and Barry Buzan (Peoples 2011, 80). Essentially, the Copenhagen School adopts a fundamentally constructivist approach in their understanding of security issues. In that sense, "they refute the claim that there are (any) inherent security issues" (Peoples 2011, 81). Thus, their focus in understanding security issues in outer space goes beyond the issues of militarization, weaponization and international regime. Security must be understood as a constructed and intersubjective issue "between those claiming an issue as security and a relevant target audience" (Peoples 2011, 81). Security is then intrinsically dependant on how security actors are framing issues as being important to national security or not and this process is called *securitization*. Columba Peoples (2011, 80) gives a good summary of the concept of securitization which is "[...] the process through which an issue comes to be seen as an issue of security. When an issue comes to be treated as an issue of national security, it is justifiable to use exceptional political measures to deal with it. It is securitized: that is, treated with the same degree of urgency as military threats have been historically".

Furthermore, the main tool which is used to analyze if a security issue is securitized or not is the *speech act*. Ole Waever (1995, 5) explains that language is very important in security and that saying that an issue is vital to national security has a very important impact on the issue. Thus, a complete understanding of security issues cannot only stand on a purely textualist analysis of reports, policies and programs (Peoples 2011, 87). Indeed, Waever demonstrates that the utterance itself is a security act: "by uttering 'security', a state-representative moves a particular development into a specific area, and thereby claims a special right to use whatever means are necessary to block it" (Waever 1995, 5). But the reverse process of *desecuritization* is also as much important as *securitization* which is that speech act can also get securitized issues back to a table of "normal" politics. Concerning outer space security issues, using speech act analysis, the goal then is to assess to which degree the current use, access, and dependence of human spaceflight in outer space with the ISS has become framed as an existential threat or not (Peoples 2011, 82). Actually, the next two sections will demonstrate that both American and Russian speech acts on outer space and especially on the ISS project are desecuritizing outer space issues because it appears that "[...] political elites seek to move issues related to outer space into the ordinary public sphere of politicization rather than view them in terms of threats and countermeasures associated with securitization" (Peoples 2011, 82). These desecuritized speech acts significantly contrast with the highly securitized speech acts of both countries about international relations on Earth.

American and Russian Securitized Speech Acts on Earth During the Crimea Annexation Crisis

It is quite evident since at least the past ten years and especially since 2014 that United States and Russia both present the behaviour of each other as being very difficult, contentious and a threat to their national security. This dynamic is also strongly present in both speech acts of American President Barack Obama and Russian President Vladimir Putin. In the case of Barack Obama's speech acts, in the context of the Russian intervention in Crimea in 2014, the American president explicitly said that the behaviour of Russia was a threat to the United States national security:

> I, BARACK OBAMA, President of the United States of America, find that the actions and policies of persons -- including persons who have asserted governmental authority in the Crimean region without the authorization of the Government of Ukraine -- that undermine democratic processes and institutions in Ukraine; threaten its peace, security, stability, sovereignty, and territorial integrity; and contribute to the misappropriation of its assets, constitute an unusual and extraordinary threat to the national security and foreign policy of the United States, and I hereby declare a national emergency to deal with that threat. (The White House 2014b).

In addition to the fact that Obama's speech act is explicitly posing the behaviour of Russia as an important threat to the national security of the United States, the U.S. president is also saying that extraordinary security measures must be taken against Russia which makes even clearer that relations between the United States and Russia are heavily securitized:

> From the start, the United States has mobilized the international community in support of Ukraine to isolate Russia for its actions and to reassure our allies and partners. [...]we'll continue to make clear to Russia that further provocations will achieve nothing except to further isolate Russia and diminish its place in the world. The international community will continue to stand together to oppose any violations of Ukrainian sovereignty and territorial integrity, and continued Russian military intervention in Ukraine will only deepen Russia's diplomatic isolation and exact a greater toll on the Russian economy. (The White House 2014c).

In the case of Russian speech acts on their relations with the United States, the situation is also very securitized and difficult. On a first-hand, as well in the context of the Crimea crisis in 2014, the president of Russia Vladimir Putin expressed that the behaviour of the United States was also dangerous for the Russian national security:

> Vladimir Putin lamented the latest round of US sanctions against Russia on Thursday after Barack Obama increased economic pressure over the Ukrainian crisis. The Russian president said the sanctions, announced late on Wednesday, were straining bilateral relations and hurting both Russian and US businesses (Associated Press 2014).

Russia's deputy minister for foreign relations also has a similar speech act saying that the U.S. sanctions are an important threat to Russia and that extraordinary and "painful" measures will be taken by Moscow in response:

> "It is yet another sign of a reckless behaviour of the U.S. administration. No lessons are learned from the past. The U.S. does literally nothing to impress its cronies and clients in Kiev on whom there is full responsibility for constant deterioration of the situation in Ukraine. This is what needs to be changed and not the policy of Russia. [...] A response of Moscow will follow, and it will be painfully felt in Washington D.C." (Levs and Labott 2014).

This brief presentation of both American and Russian speech acts on the Crimean crisis is clearly showing that for both countries the behaviour of the other side poses serious security threats to their national security and extraordinary measures must be taken in consequences. Thus, following the securitization theory of Copenhagen School, the international relations between the United Stated and Russia are securitized which explain the contentious geopolitical relations and hard cooperation between the two countries on Earth. Although this research has not yet been done, we suspect that a similar analysis would emerge from other contentious events between the United States and Russia (2007 ABM installations, 2015 Edward Snowden Affair, 2015 Syrian crisis, etc.).

American and Russian Desecuritized Speech Acts in Outer Space on the ISS Project during the Crimea Annexation Crisis

Now, focusing on American and Russian speech acts concerning the ISS project, we can notice that both countries (at the same moment as their 2014 difficult relations mentioned above) adopt desecuritized speech acts and therefore the ISS project and outer space issues are not framed as security issues like both countries international relations on Earth. On the contrary, the ISS is considered as very important, successful and a vital cooperation project. This distortion between outer space and Earth speech acts contributes to understanding how the cooperation between the United States and Russia in the ISS is possible despite their contentious relations on Earth.

Indeed, the American speech acts regarding outer space and the ISS are clearly not framing this issue the same way as political tensions on Earth. On a more general matter, the Administrator of NASA Charles Bolden explains that the ISS is an essential tool for peaceful global cooperation (which includes cooperation with Russia):

> The ISS is the most complex and challenging engineering endeavour in history. The key to its success has been the combination of NASA ingenuity and international cooperation. With a partnership that includes 15 nations and with 68 nations currently using the ISS in one way or another, this unique orbiting laboratory is a clear demonstration of the benefits to humankind that can be achieved through peaceful global cooperation. (The White House 2014a).

More precisely concerning the situation with Russia in outer space and in the ISS, Bolden explains that the International Space Station program demonstrated the ability of the United States and Russia to cooperate on a very important complex project: "We on the International Space Station are a model for the rest of the world to follow" (Foust 2016). Bolden also explicitly explains that the United States and Russia deal the situation in the ISS differently from the geopolitical situation on Earth: "As we have demonstrated, looking at incursions by one of our partners into other countries [Russia's annexation of Crimea], that has not deterred or slowed work we have done on the International Space Station" (Foust 2016). This perception is also shared by NASA scientists notably Pete Hasbrook which express that the cooperation between the two countries must continue:

> NASA and Roscosmos continue to encourage international scientific cooperation and expanded use of the ISS Laboratory. “Long-term”, larger collaborations will achieve scientific objectives that no single national science team or agency can achieve on its own. The joint accomplishments achieved so far have paved the way for a stronger international scientific community and improved results and benefits from ISS (Hasbrook 2016).

Concerning the Russian speech acts on the cooperation in outer space and the ISS, we can notice the same distortion where their discourse is also desecuritized. Sergei Krikalev, Russian cosmonaut and senior officials at Roscosmos, has the same speech act as Charles Bolden explaining that "despite any political issues between Russia and the United States, the space cooperation continues, and the current cooperation is a good example of how we should collaborate, because the space collaboration is important and it should be systematic" (Spacedaily 2016). This remark is also corroborated by Russian cosmonaut Mikhail Kornienko who explains that "our work here and our cooperation on board [the International Space Station] is a great example for all politicians [...] if they spent at least one month on board together, it would have probably resolved most of their problems and discussions on the ground" (Krever 2015). Igor Komarov, Charles Bolden counterparts at Roscosmos, also expresses that even if outer space cooperation is excellent between the United States and Russia, Russia wants to push this cooperation further: "We have agreed that Roscosmos and Nasa will be working together on the programme of a future space station" and both countries will create a new, unified set of space programme standards and systems, which Komarov said is "very important to future missions and stations" (Boren 2015).

Using the Copenhagen School approach and securitization theory in the context of the 2014 Crimea crisis, this third section helped to understand that the cooperation between the United States and Russia on the ISS is possible because both countries do not use the same security speech acts regarding their relations with each other in outer space from the speech act they use for their international relations on Earth. Thus, both countries are using securitized speech acts on Earth that consider the behaviours of each other as a vital *threat* to their national security while both countries desecuritized speech acts in outer space on the ISS are considering their relations not as vital threats but as very important peaceful cooperation.

Conclusion

This paper started from the fact that the International Space Station is an abnormal cooperation in the international politics spectrum. Indeed, it is quite surprising that the United States and Russia, literally enemies on many international issues on Earth, are extensively cooperating on the ISS. How can we understand this anomaly where cooperation in outer space and in this ISS differs significantly from the difficult geopolitics and security situation of the two countries on Earth? The first section of the paper briefly presented the different field of use of outer

space and how the ISS fits in the field of the civil-scientific use of outer space. This field differs significantly from the military and commercial fields which are subject to almost zero cooperation. The second part of this article presented more concretely why we can qualify the cooperation situation in the ISS between the United States and Russia as being abnormal. Finally, the third section proposed to analyze the situation of cooperation in the ISS under the scope of the Copenhagen School and securitization theory. With the help of the 2014 Crimea annexation crisis, it has been demonstrated that we can understand the very good collaboration between the United States and Russia in the ISS because neither country is framing security issues in outer space the same way that they are framing security issues on Earth. Using speech act analysis, we can understand that cooperation is possible between the United States and Russia because while both countries are using securitized speech acts on Earth that consider the actions of the other side as a threat to their national interest, both countries are using a different speech act (desecuritized) in outer space which does not see the other as a vital threat but as a very important and peaceful cooperative partner.

More generally, the contributions of this analysis are threefold. A first contribution is that this research helps to bring to light the surprising fact that cooperation in human spaceflights differs significantly from international cooperation on Earth between the United States and Russia. Understanding what are the political speech acts dynamic behind the ISS cooperation is a step forward to a better understanding of how international relations in outer space works. A second contribution is that the use of the securitization theory (and its explanatory power) gives new arguments to the perspective that security is intrinsically a constructivist and social concept that can vary depending on the discourse and the perspective that the security actors are using. Thus, it is a fact that to understand security issues in outer space, we need to go beyond issues of militarization and weaponization. Finally, the last contribution is that this article incites to do more research on the distinct nature of outer space relations. As Michael Sheehan explains, "it appears so far that space is not that field of conflict that a lot are worried about. Actually, in many ways, space exploration seems to be a naturally "federative" activity which encourages international cooperation on a variety of grounds" (Sheehan 2007, 181). For instance, even during the Cold War, the United States and USSR managed to significantly cooperate in outer space with the Apollo-Soyuz Test Project in which the spacecrafts of both countries docked, linked up and shook hands in space in 1975 (Sheehan 2007, 65). Securitization theory may be a good way to start to understand how relations in human spaceflights differs so much from international relations, but more investigations are needed to understand why is that so. Indeed, a more robust analysis of this topic is needed in order to understand why both countries are using these different speech acts.

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