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**To the stars and beyond: the role of the private space industry in securitizing outer space: A discourse analysis on the American private space industry, examining its role in the securitization of outer space within a United States context, between 2010-2021.**

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# To the stars and beyond: the role of the private space industry in securitizing outer space

*A discourse analysis on the American private space industry, examining its role in the securitization of outer space within a United States context, between 2010-2021.*

Master's Thesis MA International Relations: Global Conflict in the Modern Era

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## Abstract

This thesis has investigated the role of the American private space industry in the ongoing securitization of outer space within the United States context. Whereas scholars have thoroughly examined the role of the state in the securitization of outer space, it has thus far predominantly overlooked possible securitizing moves performed by the private space industry, as well as the role of the novel NewSpace industry within that process. Therefore, this investigation aims to examine the private space companies SpaceX, Virgin Galactic, and United Launch Alliance (ULA) building upon securitization theory. Specifically, it will provide a discourse analysis on those companies' webpages, uncovering four discourses possessing either or both securitizing speech acts and performative securitization. This thesis finds that the private space industry took on a facilitating role regarding the securitization of outer space by proliferating and enhancing space launching capabilities and engaging with the U.S. military and national security services. Furthermore, it might have contributed to the securitization of outer space by performing speech acts, but this investigation refrains from drawing that conclusion, as it has not investigated the audience involved and thus cannot estimate whether the speech acts were performed successfully. Nevertheless, these findings combined with the academic literature on PMSCs, suggest that private space companies sometimes can look and act like PMSCs, explaining why private space companies might be incentivized to contribute to outer space securitization.

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# Chapter 1 – Introduction

“If we can’t agree a legal framework governing their use and the territories they lead to, it follows that we may end up fighting over them just as we have done on Earth for most of human history. Alas, it appears almost written in the stars what we will compete for them” (Marshall, 2021, p. 302). With this referral to access capabilities to space and the territories of outer space itself, Marshall (2021) asserts a rather alarming expectation. Indeed, the grown importance of outer space for modern societies in their everyday activities, accompanied by a significantly lowered barrier for players to enter space, has led to historically high levels of competition over Earth’s outer orbit, making analysts claim that the world is now entering a new phase of the Space Age (van Manen, Sweijs, & Bolder, 2021, p. 1).

This lowered barrier of entry into space is in large part due to the invention of reusable rockets by the booming private space industry, which from now on will be abbreviated as PSI. Private companies which are active in, for instance, the launching of satellites, as well as rockets carrying cargo and astronauts, and the establishment of space tourism have, hence, seen their revenues erupt in recent years. Their business will continue to flourish, as the total size of the space economy was calculated at \$424 billion in 2019 and is estimated to grow to \$2.7 trillion in 2050, and the costs of putting objects into space will diminish respectively (van Manen, Sweijs, & Bolder, 2021, pp. 1-37). Meanwhile, more and more states regard outer space as a domain of critical military and national security importance, illustrated in the adoption of new strategies towards space, the development of outer space weaponry, and the establishing of Space Forces as part of a state’s armed forces (van Manen, Sweijs, & Bolder, 2021, pp. 1-37). This leaves scholars to conclude that space is increasingly being securitized (Peoples, 2011, pp. 76-94).

Whereas scholars have examined the role of states in this securitization process, they have generally left the role of the PSI in it untouched. Hence, this thesis will attempt to examine the role of the PSI in the securitization of outer space. Specifically, it will build upon securitization theories to uncover securitizing moves through speech acts and performative actions executed by SpaceX, Virgin Galactic, and ULA. In pursuit of this goal, it will produce a discourse analysis based on originally gathered data found on those companies’ webpages. The research question central to this investigation is: *“To what extent did the private space industry influence the securitization of outer space within the United States in the period 2010-2021?”*.

To answer this research question, the thesis will adhere to the following structure. The second chapter will present a literature review, containing a reflective overview of the main scholarly debates that need to be encompassed within this thesis for it to provide a solid analysis of the research subject. The third chapter will provide a methodological framework, further elaborating on how this thesis attempts to answer the research question. In turn, the fourth chapter will present the findings of that analysis. Subsequently, these findings will be discussed and put into synthesis with the theories found earlier in the literature review in the fifth chapter, where the thesis' limitations will also be considered. Chapter six will put forward a conclusion, accompanied by recommendations for future research.

## Chapter 2 – Literature Review

To understand how the private industry might influence the securitization of outer space within the United States context, it is necessary to first get a grasp on the theoretical concepts that highly impact that thought process. Therefore, the following section will present a literature review on the scholarly debates on securitization theory and space security. Additionally, it will concisely present the groundbreaking work of Peter Singer (2008) on private military and security companies (PMSCs) and will make a case that some contemporary private space companies could sometimes be categorized as such.

### 2.1 Securitization theory

Since the 1990s, securitization has taken an immense flight up high within the scholarly world (Stritzel, 2007, p. 357). This coincided with the emergence of constructivism of which the core idea is that social life, i.e., norms of behavior, are produced by iterative social behavior and practice. In other words, norms of behavior are social constructions that are the product of how actors repeatedly interact with one another (Mauer, 2009, pp. 47-49). Contributions stemming from the constructivist school of thought led to the formation of securitization theory. Two of the main contributors from Copenhagen School of thought, Buzan and Wæver (2003), describe the phenomenon of securitization as follows: “the discursive process through which an intersubjective understanding is constructed within a political community to treat something as an existential threat to a valued referent object, and to enable a call for urgent and exceptional measures to deal with the threat” (Buzan & Wæver, 2003, p. 491).

According to Balzacq, Léonard, and Ruzicka (2016), three core concepts together form the foundational elements of securitization theory (Balzacq, Léonard and Ruzicka, 2016, pp. 499-507). These are 1) “*the securitizing actor*”, i.e., the actor that depicts a phenomenon as a threat through a securitizing move; 2) “*the referent object*”, i.e., the phenomenon that is being threatened; 3) “*the audience*”, i.e. those who have to accept the securitizing move of the securitizing actor, which makes the threat construction process intersubjective (Balzacq, Léonard and Ruzicka, 2016, pp. 499-507).

As reported by to the Copenhagen School, it is necessary for phenomena to be securitized, to perform a speech act (Williams, 2003, pp. 512-515). A speech act is a performance by which simply uttering something, something else is being done. Within the securitization context, that means that when a representative of a given political community utters security, in a broad sense, combined with a certain event or phenomenon, it categorizes it within the domain of security as



an existential threat (Williams, 2003, pp. 512-515). For example, uttering that migration is an existential threat to the survival of the national community, one securitizes migration, justifying immediate and extraordinary measures (Huysmans, 2000, p. 758). Speech acts can only be successful if it is performed with the boundaries of generally accepted procedures of communication and if the securitizing actor possesses the authority and a coherent relationship with its audience to do so (Williams, 2003, p. 525).

The Copenhagen School's focus on performative speech acts did, however, receive the criticism of having a too narrow focus (Williams, 2003, pp. 524-528). The main criticism on this focus on speech is that the contemporary world of political communication is changing into one that increasingly uses *images*, instead of mere *speech* for communicative action. Television, the internet, and social media are increasingly important for the exchange of thoughts between and within communities. Hence, it is argued that images increasingly play a role in the process of securitization (Williams, 2003, pp. 524-528).

A school of thought propagating a different focus than the Copenhagen School is the later developed Paris School. Whereas the Copenhagen School primarily focuses on speech acts as the enabler of securitization, the Paris School focuses on practices and techniques of government (Balzacq, Léonard, & Ruzicka, 2016, pp. 504-507). Securitization is claimed to be a process in which practical and technical manners depict whether certain events or phenomena become securitized or not. The Paris School suggests that agents can be identified within a field according to their nature and power relationship to other agents within the field. Those power relations are defined by the amount of capital, i.e., power resources, an agent. Power resources can be identified in terms of, for instance, economic, cultural, symbolic, and information sources. Those agents in the field work together towards a shared body of interests, threat perception generation mechanism, and body of techniques to neutralize those threats. In this way, it is argued that such fields pave the way for "regimes of practices" in which power relations between agents define the routine of the securitizing practices' form and content. The notion of routine is important, as the mere performing of a securitizing move does not necessarily implicate that there is a routine of securitizing practices (Balzacq, Léonard, & Ruzicka, 2016, pp. 504-507). In practice, the leading Paris School author Bigo (2002) argues, the securitization of a phenomenon often occurs through a combination of speech acts and security practices (Bigo, 2002, pp. 65-66).

Building upon Bigo's work, Léonard (2010) defined securitizing practices as "activities that, by their very intrinsic qualities, convey the idea to those who observe them, directly or indirectly, that the issue they are tackling is a security threat" (Léonard, 2010, p. 237). For example, Léonard (2010) argues that the securitizing practices of the EU's FRONTEX are inherently contributing to the increasing securitization of migration as the organization's expertise and regime of security practices concerning border and migration control, enabled less capable states to develop security practices on those areas (Léonard, 2010, pp. 246-248).

It is important to note that securitization is not a dichotomous phenomenon, i.e., something is not either totally securitized or completely not (McInnes & Rushton, 2012, pp. 128-129). Rather, securitization takes place on a gradual scale on which, generally, issues do not transcend from being a "normal" issue to a full-on securitized issue. Instead, issues gradually climb up a ladder of security importance with most of them never actually reaching the level of full securitization. Conversely, securitized issues can also become less securitized (McInnes & Rushton, 2012, pp. 128-129).

Securitization theory has been used, for instance, to explain how climate change has become securitized, as scholars see it as a catalysator for future conflicts that pose existential threats (Brzoska, 2009, pp. 137-139). Another example is provided by McInnes and Rushton (2012) who argued that HIV/AIDS was increasingly categorized as an existential threat to the stability of states (McInnes & Rushton, 2012, pp. 121-123). Other scholars, such as Özcan (2013) use theories of securitization to examine the securitization of energy, as the possession of energy resources are crucial to the economic and military wellbeing of states, making the absence of it, or the usage of it as a political weapon, an existential threat to a state's stability (Özcan, 2013, pp. 11-16).

## **2.2 Space security**

Now that a review of securitization literature is in place, this second part of the literature review will proceed with the next major theoretical realm relevant to the research question, namely, space security.

### **2.2.1 History of space security**

Amidst the Cold War's Soviet-US space race, the United Nations General Assembly adopted the 1967 Outer Space Treaty (United Nations General Assembly, 1967). With the signing of this treaty, the groundwork for the emergence of international space law was constituted and it is ratified by a vast majority of states worldwide (Quinn, 2008, pp. 477-481). The treaty's main purpose was to prevent signatory states from claiming sovereignty over outer space or other celestial bodies. It did, however, recognize the value outer space has for peaceful initiatives, yet it strongly denounced the use of outer space for military and security activities by state parties (Quinn, 2008, pp. 477-481). Another important purpose of the treaty was to prevent states from placing weapons of mass destruction in outer space (United Nations Office for Disarmament Affairs, n.d.).

It is important to note that whereas the treaty prohibited some state actions within space, it did not prohibit private activities in space (Cunningham, 1985, pp. 804-806). Commercial activity in the realm of space development was accepted if those private actors were authorized by their home state governments to enter space, and only if they adhered to international law. Additionally, Article VI of the treaty states that state parties are responsible "for national activities in outer space, ... whether such activities are carried on by governmental agencies or non-governmental entities". (Cunningham, 1985, pp. 804-806). This implicates that the behavior of private space companies on behalf of the United States, for example, finding a colony on Mars, would fall under de responsibility of the U.S. Government.

With the end of the Cold War, the fear of nuclear war launched from outer space significantly shrunk, whereas commercial activity in space rose (Quinn, 2008, pp. 477-491). As commercial interests and opportunities in outer space grew, states increasingly followed their "national interests", disregarding the Outer Space Treaty (Salin, 2001, pp. 19-25). According to scholars, privatization has accelerated in the 1990s, in turn increasing competition within the space sector. Most notably, scholars argue that this increased competition and activity of private actors within the sphere of spacefaring was accompanied by an increased militarization of space. As Salin already in 2001 argued, private space companies were ever more seen as the ones protecting national

interests in space. Moreover, he argued that increased commercialization of space was another way than militarization for states to increase their influence in outer space. Nevertheless, this increased privatization of space activities, paved the way for securitizing and militarizing space, as states were keen on protecting their business interests and influence in space. As more space actors sought to protect their business interests in space, increased security competition seemed inevitable (Salin, 2001, pp. 19-25).

### **2.2.2 Contemporary Space Security**

Salin's predictions of increased security competition in outer space, seem to be accurate to this day. Increasingly more states and private actors are active in the realm of space, and outer space itself is increasingly perceived as a domain of strategic competition (MacDonald & Council on Foreign Relations, 2008, p. 3). It made scholars revisit the concept of space security, establishing the following definition: "the ability to place and operate assets outside the Earth's atmosphere without external interference, damage, or destruction" (Moltz, 2011, p. 11).

While the importance of space capabilities for national security purposes grew, so did the incentive for non-space states to develop space programs of their own. Their aims are sometimes peaceful, but some aim at achieving space superiority: "the ability to use space for one's own purposes while denying it to an adversary" (Weeden & Samson, 2018, p. xvii). To defend themselves from threats from space and other states from achieving space superiority, states developed counterspace (CSO) strategies, otherwise known as space control: "Counterspace is the mission carried out to achieve space control objectives by gaining and maintaining control of activities conducted in or through the space environment" and aim "to achieve a desired degree of space control or space denial to an enemy" (Shabbir & Sarosh, 2018, pp. 122-124).

This adversarial nature of both the definitions of space superiority and counterspace is important because it underlines the construction of not being in control of outer space as a threat. Like scholars, governments also recognize this increasing securitization of outer space, even leading to an almost unanimously adopted UN resolution, calling upon UN member states to prevent the emergence of an arms race in outer space (Moltz, 2011, p. 3). Nevertheless, states have developed space strategies, ranging from great powers such as China, Russia, and India (Shabbir & Sarosh, 2018, p. 124), to more modest powers like Israel (Israel & Paikowsky, 2017, pp. 151-166).

The variety in power between those states illustrates that space activity is far from an exclusive superpower activity anymore. Moreover, it worries scholars such as Peoples (2011) that state actors and international organizations increasingly regard outer space as crucial to a modern society's infrastructure and, therefore, justify militarization and weaponization of it (Peoples, 2011, pp. 2-19). Whereas Peoples (2011) examines the implications of the securitization of space, coming from a state-centric approach, this thesis will examine the actual securitizing moves executed by the private sector.

### **2.2.3 Space security within the United States context**

As mentioned above, the United States was one of the world's two superpowers in the 1960s that were first in establishing space programs. The Outer Space Treaty prohibited the appropriation of outer space, as well as the placement of nuclear weapons in it by whatever state actor. The United States did, however, continue to develop their military space capabilities unilaterally, mostly aimed at achieving space superiority (Weeden & Samson, 2018, p. 78). With the end of the Cold War, space-related cooperation between the U.S. and Russia intensified, with the agreement to develop the International Space Station as a top-notch example of US-Russian space cooperation (Moltz, 2011, pp. 237-238).

The U.S. unilateral approach to space largely returned under the consecutive 2001 and 2005 Bush administrations, whereas Obama's sought to return to a more multilateral approach to space when he presented his 2010 National Space Policy (NSP) (Moltz, 2011, pp. 305-314). Within it, the administration toned down Bush's aggressive rhetoric concerning space security, and focused on economic and scientific, rather than military activity in space. Although the Obama administration did not increase expenditures on its military space capabilities, it did still push forward with several military projects that its predecessors had endowed. It is also important to note that the Obama administration recognized the growing importance of private players in the space domain and their potential to dramatically lower the costs of spacefaring and satellite launching capabilities, granting the U.S. huge benefits (Moltz, 2011, pp. 305-314).

The subsequent Trump administration, in 2018 voiced its vision of a department specifically dedicated to space security within the military domain, the so-called United States Space Force (Dolman, 2019, pp. 16-17). As of December 2019, this new branch of the US military was established, itself claiming its creation to be a reaction to the increasing threats posed by other space powers to the U.S. national security (United States Space Force, n.d.). Trump's administration

revitalized the U.S. unilateral approach to space and heavily invested in enlarging U.S. space capabilities. In achieving this, it saw an important role for the booming PSI which it provided with an unparalleled robust regulatory framework (Tronchetti & Liu, 2018, pp. 418-422). Increasingly working with the private space sector gave both the industry and American space program an immense boost. Companies such as SpaceX, ULA, and Virgin Galactic today all compete for contracts to bring astronauts, cargo, and satellites into space for NASA, as well as for contracts with the U.S. military (Tronchetti & Liu, 2018, pp. 418-422).

SpaceX and Virgin Galactic could be categorized into the rather novel NewSpace industry. Scholars describe NewSpace to be a recent trend of extreme exponential growth of the PSI which develops quick and cheap access to outer space and is oriented at commercial benefits, which is different from the traditional space industry that rather focusses security and science which is sometimes called Old Space (Muelhaupt, Sorge, Morin, & Wilson, 2019, p. 80). Although these private actors have a commercial character, they do lead to increased competition in space as easy access to space is proliferated amongst states for which it previously would have been too expensive to enter space (Quintana, 2017, pp. 90-94). As mentioned earlier, the commercial growth in space activity in the past led to states following their own interests and protecting their space assets by securitizing space (Salin, 2001, pp. 19-25), which is of much resemblance with what scholars see happening now (Quintana, 2017, pp. 94-95).

## 2.4 PMSCs

Building upon Peter Singer's (2008) groundbreaking work *Corporate Warriors: the Rise of the Privatized Military Industry* a plausible case can be made that some private space companies look a lot like private military and security companies (PMSCs). According to Singer (2008) PMSCs are commercial competitive companies that offer military services on the market of force, who tick (most of) the following boxes: it 1) has a corporate structure; 2) contains a business profit-driven culture; 3) has the character of a legal public entity; 4) offers a wide range of services to a varied clientele; 5) recruits new specialized employees publicly; 6) is tied to a corporate holding and the financial market (Singer, 2008, pp. 44-48).

Accordingly, PMSCs are categorized in three different service domains, namely: 1) military provider firms that provide combat services and are often aimed at force-multiplying; 2) military consultant firms that provide military advice or other strategic, operational, or organization insights and knowledge; 3) military support firms that provide supplementary military services such as "logistics, intelligence, technical support, supply, and transportation" (Singer, 2008, pp. 91-100). It is important to note, however, despite them not being active in actual combat action, militaries are crucially dependable on the services of military support firms for the proper execution of military operations. Moreover, "they (PMSCs) have either expanded into the military support market after reaching a level of dominance in their original business ventures elsewhere or found it to be an external area where they could maximize previously established commercial capabilities" (Singer, 2008, pp. 91-100). This increasingly seems to be the case with companies such as SpaceX, ULA, and Virgin Galactic.

Building upon Singer's (2008) work, this thesis argues that private space companies such as SpaceX, ULA, and Virgin Galactic might sometimes be considered as PMSCs. That is the case because they then are commercial actors that are active in the military and national security realm and additionally tick all six of Singer's (2008) boxes. For example, companies such as Virgin Galactic (Virgin Galactic, 2019), as well as SpaceX (Sheetz, 2021) have signed contracts with the respective Italian and U.S. militaries to bring astronauts into space, with their own commercially developed spacecraft. In addition, SpaceX won a \$149 million contract with the military, to develop satellites that can track intercontinental ballistic missiles, which the US military itself is not yet capable of (Duffy, 2020a). A third and striking example is that of SpaceX being contracted to develop new rockets for the US military that enables it to transport a load of 80 metric tons to any destination in the world within an hour (Duffy, 2020b).

Hence, these companies have entered the military domain and, therefore, reflecting on Singer's (2008) typology of PMSCs, a plausible case can be made that private space could sometimes be seen as PMSCs. Until present, scholars of PMSCs have so far overlooked the linkages between outer space and PMSCs. This thesis argues, however, that as outer space is increasingly seen as a domain of the military and importance for the national security of states, the role of private space companies should not be neglected. This is important because PMSCs in the past have proven to be securitizing actors themselves as well, for instance in the War on Drugs. Here, such companies are highly active and incentivized to maintain and enhance the by the government securitized status of drugs and to keep the War on Drugs going, as it provides them with revenues (Hobson, 2014, pp. 1448-1452). If private space companies are considered to be PMSCs, it then could be explainable why they are securitizing space, as they are financially incentivized.



## 2.5 Literature review conclusion

Throughout this literature review, the core concepts central to this thesis were thoroughly examined. What became clear, is that the Copenhagen School contributed to securitization theory with speech acts, that the Paris School added securitizing practices and that images are important securitizing tools as well.

Additionally, it became clear that American politicians increasingly regard outer space as a domain that is crucial to the United States' national security. Simultaneously, space capabilities of the private industry grew to unprecedented heights, and the number of space actors rose accordingly. Scholars have identified a growing securitization of space by states, whereas they simultaneously recognized the immense boom in the PSI. Scholars did, however, pay less attention to the role of this private industry in the securitization of space. They acknowledged that the privatization of space during the 1990s led to more space nationalism and the pursuance of states' national interests. As the commercial activity and importance of outer space grew, so did the incentive to protect those assets. Hence, scholars argued that the securitization of space was partly due to the increased activity of the PSI.

With the emergence of the NewSpace industry and SpaceX, ULA, and Virgin Galactic as huge players in the field of spacefaring, this privatization continued. Those companies' successes were partly due to the hugely beneficial and unparalleled regulatory framework created by the United States government. Those companies proliferate spacefaring capabilities to other private actors and states, who are interested in entering space due to the of dramatically lowered costs of entrance. Hence, space is ever more crowded and of interest for a growing range of actors.

The question remains, however, how exactly the contemporary PSI might be a securitizing actor itself. Although the literature pays some attention to the securitization of space and the role of privatization in the 1990s, it does not articulate how private actors themselves are performing securitizing moves and rather focuses on states. This thesis is particularly interested in how private space companies are securitizing space and particularly through what moves. Therefore, the research question central to this thesis will be: *“To what extent did the private space industry influence the securitization of outer space within the United States in the period 2010-2021?”*.

## Chapter 3 - Methodology

### 3.1 Research objectives and relevance

The goal of this thesis is to examine the role of the PSI in the securitization process of outer space. Based on the literature, it became clear that space becomes increasingly securitized. Now, it is of utmost importance to understand how the dynamics behind this process work. Whereas previous scholars particularly focused on the role of states in this securitization process, the role of the PSI received less attention. However, the PSI experienced an immense boom in activity, especially in the last decade, and entered the security domain by signing military contracts with various governments. Hence, it would be wise not to underestimate its influence, and to scrutinize its actions, as the companies might be securitizing themselves.

As mentioned in the literature review, the literature pointed at three different foci of securitization theory, namely, speech acts, images, and performativity. This thesis will make use of the theories of speech acts and performative securitizing moves, i.e., the Copenhagen and Paris Schools. If combined, the method of analysis will be more robust, as the literature review has shown that using either one solely, might be insufficient. It will not, however, use theories of securitization through images, due to the thesis's constrain in the form of a word limit.

It is important to understand the rapid development of the PSI and its potentially securitizing character, as this could have colossal implications for the international approach to space security. There has not yet been actual warfighting in space, but all world powers recognize that achieving space dominance in a future conflict, might turn out to be a decisive mechanism for victory on Earth itself (Shabbir & Sarosh, 2018, pp. 124-128). In turn, the PSI could alter the dynamics of such conflicts because it expands the capabilities of states to enter space militarily and enhances those of the states already present there. It is then partly responsible for the outcome of these changing dynamics of international (in)security. Hence, it is justified to examine the role of the private industry in the securitization of space.

This thesis wants to underline that it is not necessarily the intention behind these companies' statements that make them securitizing actors or not. Such companies can also do this unintentionally, nevertheless contributing to the securitization of outer space. Hence, this thesis should not be seen as a normative attack on the PSI or a moral crusade against their growing importance. Instead, it aims at objectively unveiling their influence on the securitization of outer space, by simply focusing on the possibility that actors from the private industry perform

securitizing moves. It is not aimed at subsequently judging those moves from a normative perspective.

### **3.2 Justification of research method: Qualitative – Discourse Analysis**

For explaining the influence of the PSI in the ongoing securitization of space, qualitative research would suit best. Qualitative research, as defined by Fossey, Harvey, McDermott, and Davidson (2002) “is a broad umbrella term for research methodologies that describe and explain persons’ experiences, behaviors, interactions, and social contexts without the use of statistical procedures or quantification” (Fossey, et al., 2002, p. 717). In addition, “Qualitative research also lends itself to developing knowledge in poorly understood, or complex, areas” (Fossey, et al., 2002, p. 718). This research’s novel focus on the private industry rather than on states makes this thesis a splendid case for qualitative research.

As mentioned by Fossey et al. (2002), qualitative research lacks the inclusion of statistics and quantification. Instead, this thesis will build upon a discourse analysis. Discourse analysis is interested, quite obviously, in the analysis of discourses. Discourses, in turn, are described as “(discourse) refers to groups of statements that structure the way a thing is thought, and the way we act on the basis of that thinking” (Rose, 2016, pp. 187-191). In addition, Rose argues that discourses are voiced through various mediums, which could be texts, images, as well as practices. Rose built upon the work of Foucault, who argued that: “Discourse disciplines subjects into certain ways of thinking and acting, but this is not simply repressive; it does not impose rules for thought and behavior on a pre-existing human agent. Instead, human subjects are produced through discourses. Our sense of our self is made through the operation of discourse. So too are objects, relations, places, scenes: discourse produces the world as it understands it” (Rose, 2016, pp. 187-191). In other words, discourses are thought constructions that give certain meanings to phenomena, that in turn have their effects on other discourses.

In turn, discourse analysis is a research method that aims at examining such discourses and tries to uncover the dynamics behind those words, images, or practices. According to Looma (1998), discourse analysis: “makes it possible to trace connections between the visible and the hidden, the dominant and the marginalized, ideas and institutions. It allows us to see how power works through language, literature, culture and the institutions which regulate our daily lives” (Looma, 1998, p. 45). As this thesis’ focus will be on examining speech acts and performative actions, discourse analysis as described above would be a good fit, as this research method examines the power through discourse the PSI might have in securitizing outer space.

Baker, Gabrielatos, and McEney (2013), for instance, used discourse analysis to divulge how the British Media had a predisposition against Muslims and Islam (Baker, Gabrielatos, & McEney, 2013, pp. 1-34). By analyzing an immense body of newspaper articles by looking at the frequency of the specific words Muslim, Muslims, Islam, Islamic in certain grammatical patterns, they managed to point out the presentation of those words. For instance, they were able to answer how the British media in general patterns associated Muslims with actions they might have performed, and “examine common predication strategies that attribute qualities to Muslims” (Baker, Gabrielatos, & McEney, 2013, pp. 1-34). They finally concluded that Muslims in the British media are generally associated with conflict revealing a pattern of thinking, as well as a power structure towards the Muslim community. This is a perfect example of how the analysis of words can uncover patterns, which in turn resemble a way of thinking about a certain subject and a power structure.

Also being a discourse analysis, but focusing on a completely different subject and medium, is the work of Tamatea, Hardy, and Ninnes (2008). Within their work, they analyze the web pages of International Schools within the Indo-Pacific region and argue that while those schools are claiming to offer unique curricula to their students, discourse analysis offers the insight that they actually offer quite the same, yet paradoxical programs, aiming at forming their students either to “individual selves, members of communities, or as individuals in the world” (Tamatea, Hardy, & Ninnes, 2008, pp. 157-170). With a sample of 100 schools from 21 Indo-Pacific countries, they methodologically organized the schools’ statements on “concerning the types of students the school was trying to produce”. Subsequently, these statements were categorized, into groupings aligning with the three earlier mentioned aims of student forming. Ultimately, they uncovered that the general thinking on education at those International Schools, as represented by the discourse on their web pages, resembles much of globalization as a frame for education. Paradoxically, the schools’ goals are often rather contradictory to one another and not always in line with this overarching paradigm.

The overarching point of these two examples is that discourse analysis can be looking at completely different subjects in completely different ways through different mediums yet is always curious about uncovering hidden patterns of thinking that in turn shape our understanding and handling of certain phenomena.

Building upon these examples, this thesis will use discourse analysis to analyze the webpages of private space companies themselves, to read between the lines, and uncover how general thinking on those websites exhibits securitizing moves. For instance, if the webpages contain a discourse that suggests that outer space is a domain of national security importance, those uncovered thinking patterns might in turn hint at securitizing moves. Therefore, the usage of discourse analysis for the uncovering of securitizing moves seems an excellent fit.

In contrast to Baker, Gabrielatos, and McEnery (2013), this thesis will not analyze the frequency of a particular phrasing. They were able to do so, as they have analyzed millions of words and a vast body of sources. This thesis, instead, will only use the webpages of the private space companies in question. This small body of data does not allow for a focus on frequency, simply because the N would be too small, and it would be rash to draw conclusions by that method. Therefore, it rather focusses on the written text available, combined with the spoken word from speeches in videos posted on their webpages and discovered securitizing acts and practices. It will seek to uncover hidden patterns in words and actions, that inhabit overarching ideas about how these companies consider space. It is key to uncover those discourses that might contain securitizing moves or implications.

### **3.3 Research context, case selection, and justification of timeframe**

As mentioned earlier, the United States is chosen as the scope of study, as their PSI is rather mature compared to, for instance, its European counterpart (Innovation Finance Advisory & European Investment Advisory Hub, 2019, pp. 78-105). In addition, the United States still is the state with the biggest public spending on space activity and is the leading state actor in that realm, although China follows suit (Peeters, 2018, pp. 1-3). Furthermore, it explicitly portrays space as a domain of security and military importance, for instance, illustrated by the formation of the Space Force in 2018 (United States Space Force, n.d.). A final reason why the United States context would fit this thesis best, is simply that the leading companies in the PSI are based in the United States.

The three cases investigated will be SpaceX, ULA, and Virgin Galactic. Those three have been selected as “typical cases” as typified by Seawright and Gerring (2008), meaning that these are cases that are typical and representative examples of the relationship between the PSI and the securitization of space (Seawright & Gerring, 2008, p. 297). Other private space companies like Blue Origin could have been chosen as well. While it is a prominent NewSpace player, the lack of data on its activities within the security realm makes it a less useful case for this thesis. In turn, another reason to select SpaceX, ULA, and Virgin Galactic is simply due to data availability. The sources used to investigate these cases will predominantly be primary sources, comprising of the three companies’ entire webpages. Additionally, secondary sources put forward in the literature review will be put in synergy with the analysis’ findings in the discussion chapter.

The timeframe that sets this research’s boundaries for investigation will be the period 2010-2021. 2010 has been chosen as a starting point, as this was the year that the Obama administration’s new National Space Policy (NSP) was published, which underlined the growing importance of the PSI for the United States to pursue its interests in outer space (Moltz, 2011, pp. 313-314). The period more closely up for scrutinization is 2018-2021, due to article availability on the three companies’ websites which only goes back until that recently. Nevertheless, the starting point of investigation is set at 2010, as the discourses found are not merely representing knowledge of the past three years, but have been there, and are constructed, a longer time ago. 2021 has been chosen as the outer boundary of the timeframe. Space activity has seen rapid and exponential growth in recent years, which makes it necessary to include sources that have only recently become available.

## Chapter 4 – Analysis

This chapter will discuss the discourse analysis' findings. As mentioned in the methodology section, three webpages of private space companies will be investigated to uncover discourses that potentially contain securitizing moves. The chapter will proceed as follows. First, an actor description will be presented on the three private space companies in question, namely SpaceX, Virgin Galactic, and ULA. Secondly, the actual analysis of their webpages will be presented, in which the overarching discourses found will be illustrated. In turn, this provides the means for the next chapter to present a discussion, in which the findings from the analysis will be brought into synthesis with the theories discussed in the literature review.

### 4.1 Actor descriptions

As mentioned above, this section will provide an actor overview for SpaceX, Virgin Galactic, and ULA. It is important to provide this information because discourses and their possible securitizing implications can only be thoroughly understood if the ones producing them are specified first. Therefore, this section will provide a concise overview of the actors, including the companies' owners, services, and foci.

#### 4.1.1 SpaceX

SpaceX is a NewSpace company (Taylor, 2021), and was founded in 2002 by its current CEO and majority owner Elon Musk, a philanthropic billionaire (Kluger, n.d.). One of the goals of Musk is to colonize Mars, which he sees as the enabler of survival of the human species, which he expects to be wiped out at one point in the future by some catastrophic event on Earth if the human species does not become multi-planetary (SpaceX, n.d.-e).

SpaceX made some revolutionary progressions in spacefaring technology, as it was the leading company to develop reusable rockets to bring people and payloads into orbital space (Reddy, 2018, pp. 125-127). Together with the efforts of other private space companies, it managed to bring down the costs of putting 1 kg of cargo into orbital space from almost \$1.000.000 in the late 1950s, to roughly \$1400 in 2021 and aims at bringing the costs down to \$10 within a few years (van Manen, Sweijts, & Bolder, 2021, p. 2). Analysts point out that this steep drop in costs to put objects into space, be they cargo, people, or satellites, significantly enlarges the capabilities of both states and private entities to engage in space activity (van Manen, Sweijts, & Bolder, 2021, p. 28). Hence, they predict that the number of satellites will grow exponentially in the near future, as well as the new ability to mine on other celestial bodies (van Manen, Sweijts, & Bolder, 2021, p. 28). The success



story of SpaceX encouraged other companies and governments from different parts of the world to focus on reusable rocketry as well, which is designated to be the SpaceX-effect (Reddy, 2018, p. 132). The fact that a company is depicted to be so influential that an effect bears its name, is illustrative of the leading role SpaceX has in the PSI.

The activities in which SpaceX is involved include bringing cargo and astronauts to the International Space Station (Kluger, n.d.), and satellite launching for military and national security purposes contracted by the U.S. military (Klotz, 2017). In addition, the company is building a worldwide high-speed, low-latency broadband internet network called Starlink, which is supposed to be supported by bringing up to 42.000 satellites into orbit, which are to be produced and launched by the company itself (Wall, 2019). Another activity it is involved in, is the research and development of new technologies that could enlarge the capabilities for spacefaring and the usage of outer space for activities on Earth. This is illustrated by the company's contract with the U.S. military to develop missile-tracking satellites (Duffy, 2020a), as well as launchers that can bring weaponry anywhere on Earth within an hour (Duffy, 2020b). These contracts are illustrative of SpaceX's leading role in, as well as the U.S. military's reliance on, the private research and development of space technology. The U.S. government is not, however, the only governmental customer of SpaceX. For instance, the company also launched the military satellite Turksat 5A for the Turkish government, which supports its military operations (Gohd, 2020).

#### **4.1.2 Virgin Galactic**

The second NewSpace actor up for scrutinization is Virgin Galactic, which is the world's first publicly traded private space company founded in 2004 by the entrepreneurial billionaire Sir Richard Branson (Taylor, 2021; Young, 2021). Inspired by the moon landing, he invested in Virgin Galactic, using the money generated from his other companies that together comprise a large conglomerate. As he envisioned, it's the company's mission to democratize space, by which is meant "ordinary people" and scientists are enabled to make space journeys of their own, using Virgin Galactic's tourist rockets (Virgin Galactic, n.d.-a). Hence, its mission could be seen to proliferate the opportunity of entering space and an attempt to establish a branch of space tourism. Aside from the commercial benefits this space tourism brings, the company claims to have an ideational mission as well, which is to bring people into space to literally see Earth from a different perspective, in turn encouraging to foster good relationships with one another and to take better care of planet Earth (Virgin Galactic, n.d.-b). Virgin Galactic puts weight in its pursuit of space

democratization by building its own reusable rockets and providing space access infrastructure, all aimed at providing individual consumers the opportunity to make a tour in space.

Although the company thus primarily aims at the individual consumer, it also engages with governments and militaries from around the world. In 2020, it announced to have signed a contract with the Italian Air Force to put three Italian researchers into space, who are to conduct experiments making use of the absence of gravity (Virgin Galactic, 2019). It will be the first contract the Italians have granted to a private space company for bringing astronauts into space. In addition, General Stefano Cont, Italy's Defence and Defence Cooperation Attaché claimed that: "The skills and contributions of the Air Force, when combined with those of other national institutions are helping to maintain Italian leadership in the aerospace domain. Our interest in this program ties directly to the Air Force main mission, which is at its core national airspace defense" (Virgin Galactic, 2019). This is a striking example of how seemingly commercial-focused private space companies can simultaneously be involved in the military domain, as the Italians deem this mission to be in their national security interest.

#### **4.1.3 United Launch Alliance (ULA)**

A private space company rather different than SpaceX and Virgin Galactic is United Launch Alliance (ULA). Before the private space boom, the American companies Boeing and Lockheed Martin were the primary providers for the U.S. government of space launch services (Kovacic, 2020, pp. 863-873). In 2005 they decided to bundle their strengths and monopolize the market of space launch services for the U.S. government. Therefore, they founded the joint venture ULA in 2006, of which both companies still hold a 50% share each, which could be seen as the first major difference compared to the two previously discussed cases that were founded and primarily owned by billionaires (Kovacic, 2020, pp. 863-873). It is important to note that these two space companies already were longer involved in the providing of space services and are categorized as the more established PSI. Hence, this joint venture is not seen as a NewSpace player, but rather one of the Old Space generations, which is the second difference with the other cases selected (Smart, 2016).

The third major difference is the services it is aiming at and its explicit stance on that. Whereas SpaceX and Virgin Galactic primarily portray themselves to be private actors with commercial and ideational aims, ULA also has an explicit focus on providing services that bolster the United States' military capabilities and national security (United Launch Alliance, n.d.-a). Although ULA mentions that it also focusses on the general wellbeing of ordinary humans across the globe, scholars view

the company as the former most important provider of launch capabilities for the U.S. Military. (Kovacic, 2020, pp. 889-894). Until 2014, it was the primary provider for the U.S. government for national security launch services. It has lost significant terrain on the market of military and national security-related launch capabilities, however, to SpaceX (Kovacic, 2020, pp. 889-894). A striking example of this is a \$653 million contract from 2020 awarded by the US Space Force to launch national security satellites, of which \$337 million went to ULA and \$316 million to SpaceX (U.S. Department of Defense, 2020). The fact that ULA had a monopoly on government contracts and now must share it for a large part with its competitor SpaceX is illustrative of the broken hegemony of ULA. The fact remains, however, that ULA is a significant player within this domain, clearly illuminated by the fact that it still got the bigger share of the 2020 contract. Therefore, the company is deemed of great importance and included within this investigation.

## 4.2 Discourse Analysis

Now that the actor descriptions are in place, this section will present the discourse analysis' outcomes. The analysis was performed on the webpages of the three private space companies discussed above and sought to find overarching discourses. To successfully outline them, statements were grouped if appropriate, into patterns of information that together form a discourse. The results presented here will later be discussed in the separate discussion section and will there be put into synthesis theories presented in the literature review. Hence, this section merely focuses on the presentation of the found discourses.

As four overarching discourses are found, they will all receive subsections of their own. It is important to note that two of the discourses found are represented on all three websites, whereas the other two are only found on either the webpage of SpaceX or ULA. Nevertheless, this thesis has chosen to include the latter two as well, because they could represent important securitizing discourses, even though they are only found on one webpage. Additionally, the fact that a discourse is absent on the other two pages, does not necessarily exclude the possibility that a discourse is covertly present within the company itself. For instance, nowhere on the website of SpaceX, it says that the company is there to protect American national security, whereas ULA overtly claims it is (United Launch Alliance, n.d.-a). Simultaneously, however, it became clear that SpaceX is involved in military activities and today serves as a prime provider of launch services for the U.S. military (U.S. Department of Defense, 2020). Therefore, including such an uncovered discourse is important, because the textually presented foci of companies do not necessarily represent the entire range of activities it is involved in. In turn, future research could further explore those discourses through other sources. It is important to note, however, that it is not possible to generalize those two discourses to the three companies as a whole and, therefore, this thesis will avoid that. Besides, it is simply impossible to know whether a discourse is covertly present within a company, so this thesis will refrain from claiming that. The two discourses presented first, are the discourses found on all three webpages. The last two have only been identified on the websites of either SpaceX or ULA.

### **4.3 Space is a positive transformative enabler and should therefore be democratized**

The first discourse found on all the three webpages in question is that SpaceX, Virgin Galactic, and ULA, recognize the power of spacefaring as a powerful enabler for a transformative process to start that will change Earth and humanity as we know it permanently and for “good” purposes, such as commerce and science. Virgin Galactic, for example, claims on its “purpose” page that: “the answers to many of the challenges we face in sustaining life on our beautiful but fragile planet, lie in making better use of space. Sending people to space has not only expanded our understanding of science, but taught us amazing things about human ingenuity, physiology, and psychology. From space, we are able to look with a new perspective both outward and back” (Virgin Galactic, n.d.-b). In addition, SpaceX’s owner Elon Musk talks about spacefaring in similar ways, but adds the twist that spacefaring is also a symbol of hope: “You want to wake up in the morning and think the future is going to be great - and that’s what being a spacefaring civilization is all about. It’s about believing in the future and thinking that the future will be better than the past” (SpaceX, n.d.-c). The webpage of ULA poses similar ideas about spacefaring. For instance, it claims to be proud to help another private party to establish a network cheap and easily accessible universal internet (United Launch Alliance, 2021b), as well as emphasizing how its previous projects helped to understand “the planet's oceans, atmosphere, land masses, vegetation and polar ice caps” (United Launch Alliance, 2021c).

The requirement for this process to succeed is that space needs to be democratized. This means that spacefaring should be accessible for everyone, ranging from states, private enterprises, to individuals, through significantly bringing down its costs by using reusable spaceships (SpaceX, n.d.-c). For instance, SpaceX plans on bringing a Japanese billionaire to the moon in 2023, partly because it is “enabling access for people who dream of traveling to space” (SpaceX, 2021a). This underlines the discourse posed by SpaceX that in the end, more and more people should be able to enter space. In addition, Virgin Galactic posted a video of the renowned planetary scientist Alan Stern talking about the company enthusiastically because he is excited by how the company is “going to democratize space by allowing so many people that would never have a chance to experience it otherwise” (Virgin Galactic, 2018). The fact that the company itself posted this video, underlines its effort to portray itself as a proponent for the democratization of space. Additionally, the companies’ order pages exhibit how uncomplicated it seems to be to contract SpaceX and Virgin Galactic for bringing anyone’s business into space (SpaceX, n.d.-d; Virgin Galactic, n.d.-c).

This democratization brings pursuance of inclusivity on multiple levels with it as well: “As a result of this underrepresentation, the aerospace sector is missing out on the advantages brought by hiring, training, and empowering diverse groups of talented people to drive innovation” (Virgin Galactic, 2021a). Therefore, Virgin Galactic grants African American youths study scholarships and aims at empowering those students through tutoring them, hoping it will subsequently improve their representation in the aerospace industry. Moreover, Virgin Galactic is bringing a prize-winning woman from Antigua into space, making her the first person from the Caribbean region to ever enter space (Virgin Galactic, 2021b). This inclusivity is, however, not only focused on the individual level, but the companies also aim at bringing more states than just the United States into space. For instance, SpaceX’s Falcon 9 has brought Turksat 5a into space for the Turkish government (SpaceX, 2021e), whereas Virgin Galactic is helping the Italian Air Force to bring their researchers into space (Virgin Galactic, 2019). It is important to note, however, that although it became clear that these companies indeed work for foreign governments as well, that does not necessarily mean that they are willing and allowed to work for every government, regardless of its origins. Moreover, ULA’s website does not possess a single word on working for governments other than that of the United States, which seems to be its most important state customer.

To conclude, a pattern was found on the three companies’ webpages that poses the discourse that spacefaring is a crucial business as it enables the commence of a transformative process that improves general human-wellbeing through science and commerce. For this process to succeed, space needs to be democratized, meaning that access to it should be proliferated, both on the individual as well as on the state level.

#### **4.4 The PSI must contribute to the maintenance of U.S. leadership in space**

The second discourse found on all three webpages was that the companies want to contribute to maintaining U.S. leadership in space. This becomes evident, for instance, in SpaceX’s statement concerning NASA’s choice to contract them to bring astronauts back to the moon for the first time since 1972: “Together, NASA and SpaceX have successfully executed similarly bold and innovative partnerships, including restoring America’s ability to launch astronauts to orbit and return them safely home. We will build upon our shared accomplishments, and leverage years of close technical collaboration to return to the Moon. In doing so, we will lay the groundwork for human exploration to Mars and beyond” (SpaceX, 2021b). By emphasizing the fact that it has restored America’s ability to bring astronauts into orbit and soon to the Moon, SpaceX acknowledges its pride or perhaps some patriotic feeling towards such a special event. In addition,

by portraying this as only the beginning, and Mars as the next step, it underlines the desire to bring more American astronauts into orbit as well. Moreover, they take very much pride in establishing records for the United States, for instance, setting the world record for the longest consecutive spaceflight so far (SpaceX, 2021c), as well as having the only spaceship in the world that can carry a significant weight of cargo back to Earth (SpaceX, n.d.-a).

The fact that SpaceX as a private actor brought American astronauts to the International Space Station, made Virgin Galactic's CEO put out a similar celebratory statement: "The NASA demo-2 SpaceX launch is part of a larger story that we should all recognize and celebrate. It is and will increasingly be, a global story, but the US can be proud to have taken the lead in harnessing the ingenuity and innovation of the private space sector. This, enabled by forward-looking policies from its public leaders and civil space program, has laid the foundations for the next space age" (Virgin Galactic, 2020a). This appreciative statement applauding the US government's dedication to the private space sector and vice versa, is illustrative of the underlying idea that it is important to maintain the U.S. leading role in spacefaring. Within that same statement, the CEO emphasized the important role the PSI has for the United States: "Especially during these challenging times brought about by the COVID-19 pandemic, this future-oriented workforce gives us confidence in the ultimate resilience of our nation and economy" (Virgin Galactic, 2020a). Hence, he accentuates the PSI's role in securing the U.S. leading role in space, also for the benefits of the American nation and economy. That U.S. space leadership is important in economic terms is evident as well, for instance, through that same CEO's reaction to the agreement Virgin Galactic signed with NASA to support commercial actors in bringing humans to the International Space Stations: "Based on the unsurpassed levels of spaceflight customer commitments we have secured to date, we are proud to share that insight in helping to grow another market for the new space economy" (Virgin Galactic, 2020b). This, in turn, implicates a discourse that besides the importance of U.S. leadership in spacefaring capabilities, economic leadership and growth are also of importance.

ULA poses ideas of similar importance, for instance through boasting that it is honored to work with NASA and that it provided the capability for the U.S. to visit Mars 20 times and launched all the government's weather and Geostationary Operational Environmental Satellites (United Launch Alliance, 2021a). However, the most striking example of ULA's dedication to maintaining the U.S. leading role in space is its mission: "Focus on our customer's mission. The technologies we enable protect our country and troops on the battlefield, enable search and rescue, provide a backbone for business, and connect families across the globe. They help us explore our city and learn about

our solar system and places beyond” (United Launch Alliance, n.d.-a). By explicitly stating that ULA is there to focus on the mission of its customer, which in this U.S. government case could be seen as maintaining space superiority, protecting U.S. troops on the battlefield, and the provision of economic gains, ULA underlines the discourse that the maintenance of U.S. space leadership is of utmost importance. Moreover, it states it is there to provide economic gains for local communities by their nation-wide presence (United Launch Alliance, n.d.-a) and is there to provide: “one of the most technically complex, critical American needs: affordable, reliable access to space” (United Launch Alliance, n.d.-d). These statements combined strongly reinforce the discourse that the PSI is there to maintain the U.S.'s leading role in space.

The three companies might be able to make these statements credible due to their technological power, which the United States seems reliant on. Moreover, ULA’s predecessors helped NASA to achieve its goals throughout the second half of the 20th century, which make it the oldest public-private partnership in the realm of spacefaring, making ULA a powerful actor possibly capable of posing such credible statements. Yet it remains challenging to determine whether the actors have met the requirement of possessing enough authority.

Whereas SpaceX and Virgin Galactic refrain from linking U.S. leadership to threats of other ascending spacefaring nations, ULA takes on a different strategy. In a speech addressed to a U.S. Congress sub-committee, for instance, ULA’s CEO stated that: “With the benefit of ULA’s launch services, NASA’s Perseverance and Ingenuity are achieving major technical breakthroughs and making exciting new discoveries on Mars. In doing so, NASA is ... demonstrating that the United States remains the global leader of space exploration, outpacing China’s aggressive space program, which is a major component of the Chinese Communist Party’s ambition to supplant U.S. global leadership and replace democracy with authoritarianism as the global model for governance” (United Launch Alliance, 2021d). With this statement, the CEO linked ULA’s services as crucial to the maintenance of U.S. space leadership. In addition, it is remarkable that he explicitly links the company’s services to a space race between China and the United States which, according to him, must be won by the U.S. to hamper China from exporting its model of authoritarian governance. By doing this, ULA’s CEO underlines the company’s dedication to maintaining U.S. space leadership, in turn reinforcing the discourse that it is of great importance for the private industry to do so.



#### **4.5 The human species is endangered, the colonization of Mars is the solution**

The third discourse found when examining the three webpages, was only explicitly found on one, namely that of SpaceX. The general idea behind this discourse is that SpaceX and its owner Elon Musk, in particular, foresee that eventually the human species will be wiped out from Earth, either through humans themselves or some unknown natural catastrophe (SpaceX, n.d.-e). Therefore, the endurance of humanity needs to be protected, for instance through settling on Mars. In a speech posted on the SpaceX website, Elon Musk stated that: “The purpose of SpaceX, was to accelerate the advent of humanity becoming a spacefaring civilization to help advance rocket technology to a point where we could potentially become a multi-planet species and a true spacefaring civilization. As we consider the fossil record, the history of civilization, it is important to bear in mind there could be some natural event or some manmade event that ends civilization as we know it, and life as we know it. And so, it is important that we try to become a multi-planet civilization, extend life beyond earth and to do so as quickly as we can. That window of opportunity may be open for a long time, or it may be open for a short time, but we should not assume that it is open for a long time. We should take action and become a multi-planet civilization as soon as possible” (SpaceX, n.d.-e). This way, Musk’s words reflect a securitizing discourse through speech act, in which he deems the human species to be the referent object, which is threatened by an unknown but humanity-annihilating catastrophe, hence justifying the accelerated colonization of Mars as it prevents the extinction of humankind. SpaceX and Elon Musk seem to have the authority to make these claims as they have the technological know-how and are perceived to be icons in space pioneering. They have achieved extraordinary milestones, have broken the ULA monopoly on launch services and its owner is a proven entrepreneur with millions of followers around the world. Hence, Elon Musk and his company might be able to make these claims credible.

To underline its vision, SpaceX states the purpose of its new flagship Starship: “Building cities on Mars will require affordable delivery of significant quantities of cargo and people. The fully reusable Starship system uses in-space propellant transfer to achieve this and carry people on long-duration, interplanetary flights” (SpaceX, n.d.-b). The fact that it claims to develop technology that enables humanity to colonize Mars, further accelerates colonization, adhering to the earlier posed discourse. Furthermore, the company launched NASA Project DART, which: “is humanity’s first planetary defense test mission to see if intentionally crashing a spacecraft into an asteroid is an effective way to change its course, should an Earth-threatening asteroid be discovered in the future” (SpaceX, 2021d). The webpage of SpaceX so far is the only one containing statements that fit into this discourse. The fact that it launched a NASA project that aims to protect Earth from incoming

asteroids, however, indicates that the company is not the only one worried about the possibility of a humanity-threatening catastrophe.

#### **4.6 The PSI is there to both support U.S. military performance and assist in persevering its national security.**

The fourth and last discourse found throughout this analysis was only explicitly found on the webpage of ULA. The general idea behind this discourse is that it is important for the PSI to assist the U.S. Government and armed forces to both boost and support military performance, as well as assist it on national security matters. As noted earlier, ULA's mission explicitly focuses on supporting the U.S. armed forces: "The technologies we enable protect our country and troops in the battlefield" (United Launch Alliance, n.d.-a). Moreover, the company offers and supports critical launches of classified defense systems (United Launch Alliance, n.d.-b), and takes pride in delivering "high-priority" payloads into orbit for the U.S. Air Force and National Reconnaissance Office (United Launch Alliance, n.d.-c).

Furthermore, within the previously mentioned speech of ULA's CEO to a Congressional subcommittee, the following statement was made: "ULA remains the only launch provider capable of meeting all national security launch needs. For many years, the Department of Defense has entrusted ULA with delivering its most important national security payloads to space. The United States Space Force's recent selection of ULA as the nation's "best value" provider, chosen to launch 60 percent of all national security payloads from 2022-2027, reaffirms ULA's trusted position" (United Launch Alliance, 2021d). That is not the only CEO's statement that emphasizes ULA's dedication to supporting the U.S. armed forces. For instance, when ULA helped the U.S. Space Force to perform its first mission ever, he stated: "Congratulations to the U.S. Space Force on liftoff of your first mission. We are proud to be your partner for this historic mission and honored to have launched the entire Lockheed Martin produced AEHF constellation on Atlas V rockets. We understand the critical importance of delivering protected communications to strategic command and tactical warfighters operating on ground, sea and air" (United Launch Alliance, 2020). Additionally, the CEO responded in an interview with DefenseNews stated that: "War fighting, when it comes to both established adversaries and emerging terrorist threats, has changed along with technology. Now it is time for America to fundamentally change its approach to space" (United Launch Alliance, 2019).

The discourse that can be drawn from these statements by ULA, is that the company is invested in providing the U.S. government and armed forces whatever they need to protect the United States in military and national security terms. It is interesting to see, however, that ULA is the only private actor investigated here that overtly and explicitly discusses its activities that support the U.S.

military and security services. This difference from Virgin Galactic and SpaceX could be explained by its rather different history and its power. The power of ULA, which is based on its historically strong ties with the U.S. government, technological know-how, and launch-failure free record (United Launch Alliance, n.d.-a), makes it an authority that might successfully perform these speech acts. It is then important to include this discourse within the analysis as other actors might open up about their military activities in the future too. For instance, as described in the actor description, SpaceX has broken ULA's seeming monopoly on the provision of launch services for the U.S. government and is expanding its activities in the military domain (U.S. Department of Defense, 2020). The fact that it does not overtly discuss this on its webpage, might change in the future, perhaps if it gains a more ingrained relationship with the government and, hence, more authority to make such speech acts credible.

## Chapter 5 – Discussion

Now that the previous chapter has presented the discourse analysis' outcomes found on the webpages of SpaceX, Virgin Galactic, and ULA, this chapter will put those findings into synthesis with the theories presented in the literature review. Specifically, it will argue that the PSI facilitates the enhanced securitization of space through both speech and performative acts. Additionally, it discusses why the industry might be capable of doing that and discuss some limitations of this research. This chapter will end with a critical reflection on securitization theory.

The discourses found throughout the analysis each possess either or both securitizing speech acts and performative acts. The “transformative enabler” discourse does not necessarily exhibit securitizing speech acts, yet it does contain performative acts. The performing of actions that democratize space such as SpaceX launching satellites for its Starlink project (Wall, 2019), launching military satellite for the Turkish government (SpaceX, 2021e), or signing a contract with the Italian Air Force (Virgin Galactic, 2019), could be viewed as such. This is the case because if access to space is to be proliferated and becomes easily obtainable, more and more individuals and especially states will enter the space domain. The fact that space will then become more crowded, combined with heightened interests in space, make it likely that orbit will increasingly be militarized and securitized too, which scholars already see happening (MacDonald, 2008, p. 3; Shabbir & Sarosh, 2018, pp. 119-121; Peoples, 2011, pp. 2-19). This trend is highly similar to what Salin (2001) saw happening in the 1990s when commercial growth in space led to states protecting commercial space assets, which made space securitization increase (Salin, 2001, pp. 19-25).

The discourses found about the companies' willingness to contribute to the maintenance of U.S. leadership in space, as well as on the possible extinction of the human species, and on the role of the PSI to support the U.S. government for military and national security purposes, seriously incline on securitization. This happens both through speech acts, mainly by ULA and SpaceX, but also by Virgin Galactic, and performative acts by all companies through their involvement with American armed forces. ULA's vocalness on its military and security views is remarkable, as it is openly advocating against the stance of most U.N. member states who adopted a motion condemning any attempts to start a new arms race in outer space (Moltz, 2011, p. 3). Yet it can be explained due to its power in technological terms and historically close relationship with the U.S. government which make it an authority that might successfully perform such speech acts. The relative novelty of the other two companies' involvement with the U.S. government for military and security purposes, conceivably makes them less expressive about their military and security views. They might act

otherwise, however, when they possess the technological power which they already have, *and* an ingrained relationship with the U.S. government on these matters, because that likely grants it the authority to attempt to successfully perform such speech acts.

All findings combined compared to the literature review, suggest that the PSI seemingly facilitates a securitization process that is already well underway, but it is not the original initiator. The process of securitization was already ongoing, for instance, during the 1990s or even the 1960s, although the intensity of this process highly varied. Currently, space activity seems to drift more towards the securitized side of the ladder, than the normally politicized, as more and more states enter space, also for military and security motivations. This adds up to McInnes & Rushton's (2012) argument that securitization happens on a gradual scale and is not dichotomous of character (McInnes & Rushton, 2012, pp. 128-129). It is important to note, however, that it might come across as arbitrary to put a label on a phenomenon for the extent it is securitized as the literature on securitization theory is rather unclear on where this threshold lies. Whereas evidence put forward throughout this thesis suggests that space indeed increasingly is being securitized, the belief that outer space is also there for ideational purposes remains profoundly present as well. Hence, it seems infeasible to put a definitive label on the level of securitization of outer space. Therefore, this thesis will refrain from trying, while holding on to the claim that space indeed increasingly leans towards the securitized side of the ladder, but without putting a label on its definitive position.

The facilitating role of the private industry in the securitization of outer space is that it dramatically lowered the costs of entry into the space domain and aims to proliferate space launch capabilities seemingly to any actor that is capable to pay for it. Hence, it acts as a facilitator for further securitization of space, as governments increasingly regard outer space as a military and national security domain. Remarkably, this is of much resemblance to the securitizing role of PMSCs in the War on Drugs. In turn, this might explain why private space companies might facilitate the accelerated securitization of space as well. As the literature review has shown, a plausible case can be made that private space companies could sometimes be categorized as PMSCs. PMSCs can sometimes act as securitizing actors, as they are incentivized to maintain or even enhance the securitized status of a phenomenon as they can financially profit from it (Hobson, 2014, pp. 1448-1452). Hence, with the power the PSI has through its technological knowledge and the reliant position of the U.S. government on them, it can sometimes act as a PMSC and reach an audience in Washington D.C. or elsewhere within the United States to maintain, enhance or facilitate the

securitization of outer space. For these purposes, it performs securitizing speech acts and performative acts.

With the discussion of an audience in Washington D.C., this chapter has struck upon a major limitation of this research. Whereas this thesis sought to intervene within the body of securitization theory by focusing on securitizing moves, it did not investigate how these moves were perceived by the audience. For a securitizing move to be successful, an audience needs to accept the securitizing move performed by a legitimate securitizing actor, making the process of securitization intersubjective (Balzacq, Léonard and Ruzicka, 2016, pp. 499-507). In this sense, the evidence put forward in chapter 4 suggests that the PSI intentionally or unintentionally, sought to perform securitizing acts, yet the question remains whether the moves have been accepted and were successful, as this thesis has not examined how these moves were perceived. Moreover, it was not aware of who exactly the audience was, as it can be, for instance, officials from the U.S. government, its armed services, or the general American public.

Another limitation of this thesis is that even though chapter 4 has presented evidence that hints at performative securitizing acts, this thesis is not capable of putting the label of securitizing practices on them. That is due to the reason that the Paris School talks about “regimes of practices” which define the *routine* of the securitizing practices’ form and content (Balzacq, Léonard, & Ruzicka, 2016, pp. 504-507). As the literature review contends, performing some securitizing acts does not automatically produce a regime of practices containing a routine. In this sense, it would be rash to claim that the performative actions of the PSI have already established such a regime and routine. The novelty of U.S. private-public military and security partnerships with the NewSpace sector limits this thesis from doing so, although the established status of ULA might suggest otherwise. This can change in the future, of course, if the NewSpace sector ingrains itself within the military and security sector and routinely produces securitizing practices.

The third limitation of this thesis is that most of the evidence described things that are currently in motion or might happen in the future. Typically, the discipline of International Relations prefers to discuss phenomena that happened in the past and within clear-cut boundaries. The rapid developments regarding this thesis’ research subject, however, necessitated it to include those findings as well, even though it perhaps limited the prospects of investigation of the subject due to data and knowledge availability.

This thesis has built upon the body of securitization theories, which sometimes proved to be useful. The combination of both the theories of speech acts and practices seemed resourceful as it provided the thesis with a more robust analysis, which Bigo (2002) already recommended (Bigo, 2002, pp. 65-66). Moreover, the theories on speech acts and practices provided the discourse analysis a focus and guided this thesis through its analyzing process.

In other instances, however, securitization theories were less useful. As discussed earlier, it remains unclear where the threshold lies for performative securitizing actions to become a regime of practices with a specified routine. Furthermore, the gradual scale of securitization is important to bear in mind, but again, this theory does not provide a mechanism to determine to what extent phenomenon *exactly* is securitized. The third criticism on securitization theory is that it remains unclear when the threshold of the prerequisite of possessing “enough authority” is met for an actor to successfully securitize a phenomenon. Do the novel companies SpaceX and Virgin Galactic already have the authority to get away with securitizing speech acts? As Philipsen (2018) suggests, it might actually be the other way around, in the sense that actors speak security, to gain authority, instead of them requiring the authority first to speak security second (Philipsen, 2018, pp. 139-160). The analysis has shown that these companies do possess technological power and that the U.S. government is increasingly reliant on them for that. Yet they lack an ingrained and lengthy relationship with that government, making their relationship with it rather different from that of, for instance, ULA. These reflections could be used to further enhance securitization theories.



## Chapter 6 – Conclusion

Throughout this thesis, which attempted at examining the execution of securitizing moves by the American PSI in the ongoing process of securitization surrounding outer space, the following research question stood central: *“To what extent did the private space industry influence the securitization of outer space within the United States in the period 2010-2021?”*.

Through the generation of a discourse analysis, this thesis has uncovered four different discourses, present on the webpages of the private space companies SpaceX, Virgin Galactic, and ULA. Each discourse was woven into the words of either all three companies or SpaceX or ULA only. All of them, however, possessed securitizing moves through either or both speech acts and performative acts. By proliferating and enhancing space launching capabilities and engaging with military and national security parts of the U.S. government, the PSI further facilitated the securitization of outer space by that government. By being involved in the securitization of this phenomenon, the PSI has acted like some PMSCs that previously were involved in maintaining and enhancing the securitized status of drugs to keep the War on Drugs going, and the revenues directed at their pockets flowing. In turn, this could explain why the PSI would have an incentive and possess the capability to facilitate the securitization of space.

The question remains, however, to what extent those speech acts performed were successful, as the audience that had to accept the speech acts was not investigated. Moreover, it remains unclear whether the PSI has established what the Paris School calls a “regime of practices”, as it is not clear when the performing of securitizing acts transcends into the establishment of a routine. Therefore, this thesis cautiously concludes that by performing these moves, these private space companies took on a facilitating role for a securitization process that was already ongoing. Nevertheless, the analysis’ findings hint that the companies have the potential to enhance the securitization themselves as well. Yet, the fact remains that this research is not capable of definitely drawing that conclusion due to its limitation of not having investigated the audience.

This leaves vast opportunities for future research. An important path for it to follow would lead into the earlier discussed role of the audience. If the audience that needs to accept the securitizing moves were to be examined, it would become feasible to investigate whether the performed securitizing moves were successful or not. Another possibility would be to investigate whether individual private space companies definitively possess the right “level of authority” to perform credible securitizing moves. If those investigations were to be combined, it would become feasible

to provide a more robust answer to the question surrounding the PSI's role in the securitization of outer space.

Future research could also turn on rather different paths. For instance, it could investigate other American private space companies and their securitizing moves such as Blue Origin or Orbital Insight. Otherwise, it could also examine the securitizing role of the European PSI for the securitization of outer space within an EU context, or frankly that of any other PSI in other parts of the world.

This thesis' last future research recommendation would be to investigate the role of images within the securitization of outer space. As commenced by the literature review, scholars view images as an increasingly critical part of communication in our modern-day societies. Unfortunately, this thesis' constraining word count necessitated this research to choose for a limited focus on speech and performative acts. Nevertheless, a focus on images would not only be a valuable contribution to the debate on the securitization of outer space but also to securitization theory itself.

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