A Space Oddity?

The Use of the Chinese Space Programme in Public Diplomacy Strategies

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15 December 2017
Word count: 16.382
Final Version

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Introduction

When the Apollo 11 famously landed the two American astronauts Neil Armstrong and Buzz Aldrin on the moon for the first time on 20 July 1969, the legendary words "*One small step for man, one giant leap for mankind*" were heard by an estimated 600 million viewers worldwide.[1] This historical achievement marks the end of the space race that had been going on between the United States and the Soviet Union for more than a decade. When the United States emerged from this war as the victor, they proudly presented this as the crown jewel on their national image, which in turn had a major impact on how other nations perceived them. From that moment on, the United States became the undisputed leading nation in advancing technology, military power and agenda-setting in international institutions.

A lot has changed since this Post-Cold War global order was established. While some countries saw their influence decreasing, other countries entering the world stage dramatically increased theirs. In an unexpected turn of events, China challenged the status quo with a booming economic rise and playing an increasingly active role on the world stage. Soon China, like other countries, discovered that in order to play the power game, image is a paramount factor to control. Foreign investments, tourism rates, exchange students, economic opportunities and international cooperation are just a few examples of factors that are determined by the image of a country. China has become very aware of this strategic resource and has since 2006 been working arduously towards improving and remoulding its national image through a range of different means. The strategic narratives of "peaceful rise" (*heping jueqi*) and "harmonious world" (*hexie shehui*) for instance, introduced by former President Hu Jintao, have already become common discourse. Related to this is the intensified interest in public diplomacy. China's leaders have long recognised that improving China's image is a prerequisite for

[1] http://edition.cnn.com/2013/09/15/us/moon-landing-fast-facts/index.html.

its economic and political rise and that public diplomacy is the key to reaching this goal.[2] A skilful use of public diplomacy has been set very high on the government agenda.[3]

In this field of public diplomacy, a country can use different tools to improve its image. China often uses its ancient and rich culture as an important resource in public diplomacy. Although this is an interesting aspect of China's public diplomacy, there is another tool that also features in China's public diplomacy strategies which deserves even more scholarly attention: its space programme. China could be striving towards a similar outcome the United States obtained when they landed on the moon half a century ago, or could see it as a prerequisite to rise on the global power ladder, but the fact remains that China has invested heavily in its space programme since the launch of its first satellite *Dongfang hong* ("the east is red") in 1970. Investments in China's space programme even skyrocketed when president Xi Jinping came to power in 2012.[4] By making advancements in manned spaceflight, deep-space exploration and aerospace applications, China is slowly closing the gap between itself and the other major space-faring powers, such as the United States, Europe and Russia, and is even becoming on a par with or surpassing smaller space powers such as Japan and India. China could by 2024 possibly be the only country to be in possession of a space station. It plans to launch its own space station by 2022, while the International Space Station (ISS), mainly manned by National Aeronautics and Space Administration (NASA), Roscosmos and European Space Agency (ESA) astronauts, is scheduled to be decommissioned in 2024. With its ambitious plans, innovative ideas and scientific breakthroughs, China is already changing the space power dynamics.

It is therefore important to look ahead and see what the Chinese space programme could bring both China and the world, but also to look at how China uses its space programme to present itself, not only because the Chinese space programme is a crucial part of China's narrative as a technologically advanced country, but also because it can contribute to the debate on power. By looking at the image China aims to project on the one hand, and China's actual behaviour on the global stage on the other, we can gain some insight into China's strategic use of its space programme and its implications. In this regard, my research is novel, but also fits into a larger scholarly debate. I hope my

[2] Wang, Jian (2011), *Soft power in China: public diplomacy through communication*, Palgrave Macmillan, ix.
[3] Extensively researched and discussed by: D'Hooghe, Ingrid (2014), *China's Public Diplomacy*, Brill.
[4] https://www.theguardian.com/science/2016/aug/28/china-new-space-superpower-lunar-mars-missions.

thesis can contribute to this debate by answering the question "How does China use its space programme in public diplomacy strategies?".

Chapter Outline

In the first chapter I will give a short overview of the key developments that play a role in China's increased interest in improving its image. I will not only discuss how China's public diplomacy has evolved in recent years, what its cornerstones are, and what framework it functions in, but also address some issues China's public diplomacy system is faced with.

When researching how the Chinese government uses its space programme in public diplomacy strategies, the choice to look at the tools and content of external communications of the Chinese government to the outside world is an obvious one. Public diplomacy covers three dimensions of communication: daily communication, strategic communication, and the development of lasting relationships.[5] In the second chapter I will investigate the use of the Chinese space programme in public diplomacy by covering these three dimensions, but also by looking at the different layers of public diplomacy (monologue, dialogue and collaboration). The amount of monologue, dialogue and collaboration material in public diplomacy itself is also very characteristic of a country, because the difference between propaganda and public diplomacy is often said to be that of one-way and two-way communication.[6] In order to investigate the image China tries to project, I have decided to analyse the discourse created by the following three sources.

Firstly, I will look at a white paper about China's space activities published in 2016 by the State Council Information Office. This Office is the leading organ of both the party and the state, and responsible for the coordination of all of China's external communications. The SCIO is formerly known as the *Wai Xuan Ban* (External Propaganda Office).[7] This immediately indicates that there is only a blurred line between public diplomacy and propaganda in China. As an important messenger of the State's external communication, the latest white paper that communicates China's

[5] Nye, Joseph (2004), *Soft Power: The Means to Success in World Politics*, Public Affairs: New York, p. 107.
[6] D'Hooghe, Ingrid (2014), p. 26.
[7] Shambaugh, David (2013), *China goes Global*, Oxford University Press, p. 221.

achievements and goals in space to the international public will help us gain a clear picture of the image China is trying to project.

Secondly, I will analyse Chinese media coverage on China's space programme. Because the range of all media articles that concern the space programme is far too extensive for this thesis, I have decided to focus on the main themes and narratives occurring in news articles within a period of three months. Examples of these narratives are China as a technologically advanced nation and the 'Space dream' as part of the 'China dream'. The media articles I will use are all from Xinhua News Agency. This news agency is state-owned, and therefore controlled by the party.

Lastly, I will look at the extent and nature of international collaboration by the China National Space Administration (CNSA). As the third layer of public diplomacy, it is also important to look at the level of international collaboration among China and other countries in space. By analysing these three sources, I hope to identify a coherent picture of the national image with respect to its space programme that China is trying to project through public diplomacy.

Beside the use of the Chinese space programme to project an image, I am also interested in how the Chinese space programme generates power. That is why in the third chapter I will look at power theory and how this is reflected in the Chinese space programme. Power is often described as having three dimensions: hard power, soft power and economic power, discussed in more detail by David Lampton in the case of China.[8] In this chapter I will use this as a background for a discussion on power theory and explain why we should stop differentiating between different forms of power.

In the final chapter I will discuss the divergence that exists between the projected image and China's actual behaviour on the world stage. In contrast to the image of a country peacefully exploring space, I will argue that China simultaneously uses its space programme for military and security purposes or to guard its interests on the global stage. I will discuss the strategic use of China's space programme and its implications for China as an international player. I will then speculate on what these newly gained insights mean for the future of China's space programme. Western media often position China as a possible threat for the existing global order or Western presence in space, but will space competition really be this fierce? Will there be a space war? China is definitely

[8] Lampton, David (2008), *The Three Faces of Chinese Power*: Might, Money and Minds, University of California Press.

not the only country developing its space programme at a high pace with high ambitions in space. I will look at the changing space power dynamics, China's future role in space, and draw some conclusions on the power of China's space programme and its impact on the world. China might be the first country to land on Mars, but whether we will relive the shift in power dynamics that followed the moon landing of 1969 remains yet to be seen.

1. Key developments and background

From the moment of opening its doors to the outside world during the Deng-era of modernisations and new foreign policy, China has been closely watched by every player of the international community. Governments watched China's explosive economic rise with simultaneously jealous and suspicious eyes and customers found it hard to buy a product in the stores that did not have 'made in China' on it. China's rising global presence is tangible in every corner of the world, and China felt that after the century of humiliation (*guochi*), it finally took its rightful place in the world. Though sometimes watched with suspicious eyes, perceived images of China in this early stage were generally good; China often received the benefit of the doubt.[9] A newly risen economic power, rebuilding itself after the events of the Great Leap Forward and the Cultural Revolution, China was foremost still a developing country. It was therefore expected that it first saw to its people's basic needs before addressing other pressing problems, such as human rights violations or corruption. But after a while, China was called upon more and more to become a responsible stakeholder on the world stage. China gradually came under more scrutiny and the "China threat" became a common notion. What will happen to our economy if the trade deficit with China continues to grow? What will the impact of China's environmental problems be on the rest of the globe? How fast will China's military power continue to grow? These questions kept the international community up at night. Especially in the United States China was watched with suspicion, since they feared that China would surpass the United States in power and replace them as the world leader.[10] Even today, China faces these challenges regarding its image. When the Nobel Peace Prize Laureate Liu Xiaobo died while in state custody, the Chinese government received international criticism for not allowing him to receive international medical care, and was held responsible for his death. At the same time steel dumping by Chinese corporations in Europe has become a major problem for the European Union. Joshua Ramo Cooper even takes it as far as to say that "China's greatest strategic threat today is its national image. (…) How China is perceived by other nations – and the underlying reality that perception reflects – will determine the future

[9] D'Hooghe, Ingrid (2010), *The Limits of China's Soft Power in Europe*, Clingendael Diplomacy Papers No. 25, p. 14.
[10] Shambaugh, David (2013), p. 22.

of Chinese development and reforms."[11] Like the rest of the world, China realised that a country's image is a vital strategic resource in world affairs.

Since 2006, China has been trying to counter these negative perceptions by investing in public diplomacy (*gonggong waijiao*). At the Seventeenth National Congress of the Chinese Communist Party, President Hu Jintao proclaimed a "comprehensive national power" (*zonghe guoli*) as the key national initiative. This power would consist of four components: economic, military, political and soft power. About this comprehensive national power Hu said that "the increase in our nation's international status and influence will have to be demonstrated in hard power such as the economy, science and technology, and defence, as well as in soft power such as culture."[12] Improving China's image is a prerequisite for its economic and political rise, and China therefore needs public diplomacy. By introducing narratives as "peaceful rise" (*heping jueqi)*, "peaceful development" (*heping fazhan*) and "harmonious society" (*hexie shehui*), China tries to project a more favourable image to the world.

1.1 China's Public Diplomacy

Before investigating the image China tries to project through public diplomacy, it is necessary to look at what public diplomacy exactly entails. There are various opinions and definitions of public diplomacy, ranging from the more traditional theory that public diplomacy is always a state-centred process of communication with foreign audiences, to the opinion that public diplomacy is a skill and does not require theorising.[13] In my thesis, public diplomacy will be understood as "the process by which direct relations with people in a country are pursued to advance the interests and extend the values of those being represented."[14] I will briefly describe the model China uses for public diplomacy, the different actors involved, the different dimensions and layers of public diplomacy, and China's goals in public diplomacy.

In the public diplomacy field there are generally two models: the state-centred model and the network model. In the former the state monitors the interaction between domestic and international policy environments, whereas in the latter non-state actors'

[11] Ramo Cooper, Joshua (2007), *Brand China*, The Foreign Policy Centre, p. 9.
[12] During the Central Foreign Affairs Leadership Group meeting on 4 January 2016.
[13] D'Hooghe, Ingrid (2014), p. 17.
[14] D'Hooghe, Ingrid, in: Wang, Jian, *Soft Power in China: Public diplomacy through communication* (2011), p. 20.

involvement is more appreciated and necessary to bring the intended message across to targeted audiences.[15] Especially in this age of globalisation, diplomacy is a two-way street, and therefore non-state actors, such as Nongovernmental Organisations (NGOs), citizens and increasingly bloggers and netizens play a crucial role in gaining legitimacy and credibility for these messages.[16] China has not yet fully embraced this network model, as it is struggling with loosening control on its diplomacy and limiting censuring the internet for the sake of public diplomacy, but it does acknowledge that non-state actors are of use in public diplomacy.

Who are China's actors in public diplomacy? This is foremost the state, with two leading organs: the State Council Information Office (SCIO) and the Communist Party's Office of External Publicity (CPOEP).[17] These two offices are in charge of developing and deciding on China's public diplomacy activities and coordinating the media, with Xinhua News Agency as their state organ. It is difficult to understand the exact nature of these organisations and the relation between them, because there is a lot of secrecy around them, but they do have a final say in major decisions concerning public diplomacy policy-making. A third state actor is the Public Diplomacy Office of the Ministry of Foreign Affairs who plays a major role in implementing public diplomacy strategies. In addition to state actors, there are also non-state actors involved in China's public diplomacy, such as NGOs, academics, overseas Chinese communities and netizens. Though the role of these non-state actors is limited, they do contribute to a more favourable image of China abroad.[18] Because China is still controlling these non-state actors instead of seeing them as partners, David Shambaugh feels that the government is turning a very valuable potential source of soft power and public diplomacy into a liability.[19]

There are three major dimensions that constitute a country's public diplomacy: daily communication, strategic communication and developing long-term relationships. In daily communication, public diplomacy is exercised through news management. The second dimension concerns strategic communication, to convey a specific message or narrative. An example of strategic communication is the narrative of "peaceful rise". In the third dimension, a country tries to build lasting relationships through cooperation or

[15] D'Hooghe, Ingrid (2014), p. 35.
[16] Ibid., p. 36.
[17] D'Hooghe, Ingrid in: Wang, Jian (2011), p. 21.
[18] Ibid., p. 23.
[19] Shambaugh, David (2013), p. 226.

exchanges. There are three layers of public diplomacy to distinguish: monologue, dialogue and collaboration. Monologue entails the one-way communication of mass media and is most suited for political communication. This is an overlap with propaganda, which often holds a negative connotation with 'brainwashing'.[20] In the second layer there is a two-way communication, aimed at relationship-building. In collaboration as the third layer, people work together towards a shared initiative.

Since the start of rebuilding its public diplomacy, China had four major goals in mind: first, China seeks understanding for its political system and policies. (…) Second, China wants to be seen as a stable, reliable, and responsible economic partner, a rising economic power that the international community does not have to fear. (…) Third, Beijing wants China to be seen as a trustworthy and responsible member of the international political community, capable of and willing to contribute actively to world peace. Last but not least, China wants to be acknowledged and respected as an ancient, but vibrant, culture.[21]

1.2. Liabilities

Despite working towards these goals and great investment in projecting a better image, there are some attributes that undermine China's effectiveness in public diplomacy, which are influenced by two factors: a country's political system and its culture. Because China has an authoritarian system, it has difficulties to adopt the network model of public diplomacy. China does not allow non-state actors to independently engage with foreign public. This is a major problem, since it leads to a lack of legitimacy and credibility with the receivers of the messages, the foreign public.[22] Public diplomacy is more effective if there are some shared values.[23] Because China still does not acknowledge all political and civil rights, censors the Internet, and limits the freedom of dissidents and journalists, messages are not always trusted. The same goes for cultural identity. The fact that China's culture differs from the intended audience, and

[20] D'Hooghe, Ingrid (2014), p. 27.
[21] D'Hooghe, Ingrid, in: Wang, Jian (2011), p. 24.
[22] D'Hooghe, Ingrid (2014), p. 51.
[23] Ibid., p. 52.

the lack of cultural freedom in China, make the receivers of the messages sceptical to its credibility. D'Hooghe names this the fundamental barrier for China's public diplomacy: as long as China does not respect civil and human rights, continues to suppress journalists and political dissidents, its messages will not have any credibility with the foreign public, and its public diplomacy will not be effective.[24]

Besides some problems that arise at the sender's end of public diplomacy, there are also some issues embedded at the receiver's end. These arise when the messages China projects through public diplomacy do not enter neutral ground, but go through a cultural filter before they are interpreted. This cognitive bias happens when pre-existing notions of a country influence the interpretation of the message, as described in the case of China's public diplomacy by Jian Wang.[25] People are much more ready to accept information consistent with their existing perceptions than information that contradicts those perceptions. This means that it is highly likely that people will accept a negative image of a rival country, if the existing image of the country is already negative. It is likewise very unlikely that people will accept a positive image of a country if it contradicts their pre-existing perceptions of that country. The research described by Wang finds a divergence in Americans' perceptions of China and China's self-portrayal.[26] It proclaims that China's projected image of a peace-loving nation contradicts the American stereotype of communist countries, and is therefore often rejected. China still struggles with preconceived notions, such as its human rights situation, corruption, territorial conflicts in the South-China Sea and the Indian Borders, the suppression of Tibetans, and lack of civil and political rights. This dominant view of China is a fundamental barrier in its image projection and public diplomacy.[27]

[24] Ibid., p. 92.
[25] In: Wang, Jian (2011), chapter three: China's Image Projection and Its Impact.
[26] Ibid., p. 46
[27] Ibid., p. 43.

2. The research

In my attempt to analyse the discourse created through public diplomacy about the Chinese space programme, I was faced with a myriad of questions that need answering. For example: what is meant by 'discourse'? Discourse constructed by whom? What is meant by communication? How does this analysis work? This section is dedicated to explaining the analytical framework of my research.

The term 'discourse' is used very differently by various researchers in various academic cultures.[28] This ranges from a more text-based approach that discourse covers all forms of communication, both written and oral texts, to a Foucauldian notion that discourse is "the flow of knowledge through time".[29] Siegfried Jäger and Florentine Maier built their own theories on this theoretical foundation, and elaborate that 'knowledge' refers to all kinds of meanings that people use to interpret and shape their environment with.[30] Discourse therefore does not only reflect reality, but also shapes and enables it, making it a social construction.[31]

Through everyday communication knowledge is transmitted. "Communication" is the practice of coding a message and transmitting it from a source to a destination, where it is decoded and interpreted. The power of discourse is to naturalise such processes and assumptions to seem self-evident. This immediately signals how discourse is fundamentally related to the question of power, because, as Manuel Castell points out, "power relies on the control of communication".[32] People in power sometimes own the means of communication and therefore have the power to construct our knowledge of the world. Mass media e.g. are often scrutinised for having too much power to create discourse. Regardless of whether these created 'truths' are a fallacy or not, they still become part of our knowledge and reality. When these social truths make most people within a society think alike about certain matters and even forgetting that there are alternatives to the status quo, we have reached Gramsci's notion of hegemony.[33] The person who is at the heart of creating discourse, is where the power is located. One individual will have a limited influence on a discourse, because everybody

[28] Wodak, Ruth and Meyer, Michael 2009), *Methods of Critical Discourse Analysis*, Sage Publications, p. 6.
[29] Jäger, Siegfried in Wodak and Meyer (2009), p. 35.
[30] Ibid., p. 34.
[31] Ibid., p. 36.
[32] http://www.politicseastasia.com/studying/how-to-do-a-discourse-analysis/, on: 3 May 2013.
[33] Wodak, Ruth and Meyer, Michael (2009)., p. 8.

is co-producing discourse and discourses take on a life of their own as they evolve, but a powerful group does have the chance to accomplish changes in discourse in the long run.[34] It is exactly this interplay that makes it interesting to analyse a discourse and how it affects power.

One of the methods of analysis is a Critical Discourse Analysis (CDA). CDA can be defined as being fundamentally interested in analysing opaque as well as transparent structural relationships of dominance, discrimination, power and control as manifested in language.[35] CDA does not constitute a well-defined empirical methodology, but is both multi-disciplinary and multi-methodological and knows many different approaches. Which approach you use always depends on your research question and the material you are working with. This means you do not have to dogmatically adhere to certain methodological steps if they do not fit your research, but there are three criteria: the methodology needs validity, reliability and objectivity.[36]

Analytical Framework

My analytical framework heavily relies on the dispositive approach, elaborated on by Jäger and Maier, grounded in the Foucauldian theories on power.[37] This approach focuses on the link between discourse and reality and between discourse and power. As discussed previously, discourse expresses social practice *and* exercises power in a society, because they institutionalise and regulate ways of talking, thinking and acting.[38] The dispositive aspect of this approach is rather a tricky one. In reality, humans assign meaning to reality. This not only affects our discursive practices, but also our non-discursive practices. Dispositive analysis examines how such assignments of meaning create reality.[39] Because this is not the aim of my research, I will not include this aspect into my analytical strategy. The purpose of my research is to determine the discourse created by the Chinese government on its space programme by using three sources: a policy document, an item of media coverage and an action (in cooperation). Although I

[34] Ibid., p. 38.
[35] Ibid., p. 10.
[36] Ibid., p. 31.
[37] Ibid., chapter 2: Theoretical and Methodological Aspects of Foucauldian Critical Discourse Analysis and Dispositive Analysis.
[38] Ibid., p. 35.
[39] Ibid., p. 39.

acknowledge that these three sources provide an empirically thin foundation for drawing conclusions on China's projected image, I argue that they will still be able to provide us with a clear picture of China's public diplomacy message, as the three sources cover all layers of public diplomacy, and are all controlled by the Chinese government. The most important data for my research are the images that are projected through discourse. My analysis consists of four components: (1) creating context and background information of the source and the producer of the source, (2) a structural analysis of the discourse strands, (3) a detailed analysis of discourse fragments, and (4) a synoptic analysis.

2.1 White Paper

The Chinese government is fairly secretive about its space programme (e.g. the budget is unknown). Therefore any communication about it is controlled by the government, and manifests itself in either white papers, speeches by spokespersons or government officials and media articles by state-owned newspaper agencies. That is why I first choose to analyse a white paper published in 2016 about China's activities and goals in space.

This white paper was made public on 27 December 2016 on the official website of the State Council Information Office, and duplicated on the official website of the China National Space Administration. The publisher is the SCIO, the official government organ responsible for external communication. Every five years a white paper on space is published to update on China's progress in space technology and its future plans. The white paper is written in English in order to reach as many people as possible. The target audience is the international community, but the audience reached might be a more select group. White papers are usually studied by government officials of other countries and other space organisations and academics, but the general public is more difficult to reach by using a white paper. That is why the CNSA decided to summarise and simplify the white paper (which is twenty pages in total) into an illustrated info graphic. I will, however, analyse the white paper itself.

The white paper is structured as follows: it starts with a preamble. The main text consists of five chapters: 1. Purposes, Vision and Principles of Development; 2. Major Developments since 2011; 3. Major Tasks for the Next Five Years; 4. Policies and

Measures for Development; and 5. International Exchanges and Cooperation. The White Paper ends with a conclusion. This is the same structure as the white paper from five years ago, only this time they added a conclusion.

The vocabulary is very technical and formal, as befitting of an official policy document. Paragraphs are neatly structured and divided into different sections.

In the structural analysis of discourse strands, I have divided the content into eight distinct discourse strands.

1) Space exploration based on cooperation
2) China as an advanced technological power
3) Space exploration by peaceful means
4) China's space programme targeting the well-being of mankind
5) China's space programme used for (national) security
6) China's space programme as independent and self-reliant
7) China as a developing country
8) Little emphasis on military use of space programme

In this section I will explain each discourse strand individually, and substantiate each with a discourse fragment from the white paper. How these discourse strands are present in the other two sources, I will elaborate in the next section.

1) Space exploration based on international cooperation.

The observation that 'cooperation' is used 43 times throughout the text[40] is indicative of the importance the Chinese government attaches to projecting a cooperative attitude to the outside world. An entire chapter of the white paper is dedicated to summarising China's bilateral and multilateral cooperation agreements. International cooperation is also the main area of development goals. Since 2011 China has signed 43 space cooperation agreements or memoranda of understanding with 29 countries, space agencies and international organisations. In the text, it emphasises the need for this cooperation, and the need to abide by international principles for space cooperation. When looking more closely at the key areas of future cooperation, China

[40] Not counting 'cooperation' in names of organisations, treaties or agreements.

aims to manifest this cooperation mainly in regional platforms, such as the One Belt, One Road Space Information Corridor, and any cooperation in BRICS or the Asia-Pacific Space Cooperation Organisation (APSCO).
The conclusion of the white paper ends with the sentence:

> *"China will promote the lofty cause of peace and development together with other countries."* [41]

By focusing on the collaborative aspect of space exploration, China positions itself less as a threat, and more as a partner.

2) China as an advanced technological power

Another image projected through this text is China as a technologically highly advanced country. As expected of a white paper on space activities, a lot of the content covers China's technological achievements in space in very scientific language, but also uses adjectives such as "key (technologies)", "major (projects)" and "important (experiments)". By dedicating an entire chapter to their achievements in space from 2011 onwards and explaining their future development plans, they focus on the actual technology required. That projects an image of a strong, technologically advanced country. 'Technology' is used 28 times throughout the text.

3) Space exploration by peaceful means

Another discourse strand is one of an already existing narrative: the peaceful rise. In the text, 'peace' or its derivative 'peaceful' is named 14 time. In the text, China emphasises the peaceful aspect of space exploration, by naming the documents that subscribe to this principle (Interests of All States and the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, Including the moon and Other Celestial Bodies and the Declaration on International Cooperation in the Exploration and Use of Outer Space for the Benefit, Taking into Particular Account the Needs of Developing Countries and in the Interests of All States), focusing on the legal aspect of peaceful exploration of space. Peaceful exploration and cooperation are

[41] White Paper, conclusion.

reiterated in China's own vision on space exploration and cooperation. By positioning peaceful exploration of space not just as its own principle, but also as a legal requirement of other countries, China seems to expect a likewise peaceful attitude from other countries in space. This is evidently shown in one of the first sentences of the preamble:

> *"The Chinese government takes the space industry as an important part of the nation's overall development strategy, and adheres to the principle of exploration and utilization of outer space for peaceful purposes."* [42]

4) China's space programme targeting the well-being of mankind

A country's space programme can have benefits for both the national and international public. In this white paper China tries to emphasise the benefits its space programme can have for the 'whole of mankind'. The word 'mankind' is used nine times throughout the text, of which eight in the context of 'benefiting or improving the well-being of mankind'. A sentence that evidently reflects this sentiment is the following:

> "*China is determined to quicken its pace of developing its space industry,(…) so that achievements in space activities will serve and improve the well-being of mankind in a wider scope, at a deeper level and with higher standards."*[43]

5) China's space programme used for (national) security

While the previous discourse strand focuses on universal benefits of China's space programme, this discourse strand focuses on how the space programme can enhance China's (national) security. 'Security' is used eight times, of which three times in combination with 'national'. In its purposes in space, China proclaims:

> *"(…)to meet the demands of economic, scientific and technological development, national security and social progress."*[44]

[42] White Paper, preamble.
[43] White Paper, conclusion.

Security remains one of China's foremost purposes, repeated in its 'vision in space' and the 'principles'. In the technological achievements and applications in space, is explained how this can contribute to national security.

6) China's space programme as independent and self-reliant

The white paper shows that China is striving towards 'self-reliance and independent innovation'. The words 'independent' and 'self-reliant' are named seven times in the text, and amongst four in combination with 'innovation'. This indicates that China no longer wants to rely on other countries' technological knowledge or space equipment. The following sentence summarises this desire.

> *"It has opened up a path to self-reliance and independent innovation, and has created the spirit of China's space industry."*[45]

7) China as a developing country

Throughout the text, China refers to different legal frameworks and international rules on space exploration to abide by, but the focus is on the equal right of all countries to explore space, in particular taking into account the needs of developing countries. In addition to recognising developing countries' right to explore space, China also values cooperating with developing countries and providing developing countries the opportunity to launch satellites (e.g. as China has launched a satellite for Nigeria). By focusing on this cooperation, China associates itself with developing countries, and arguably positions itself as a developing country itself.

8) Little emphasis on military use of space programme

An interesting observation is that the military aspect of China's space programme is conspicuous by its absence. The words 'military' or 'defence' are not used in the text.

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[44] White Paper, I (1).
[45] White Paper, preamble.

There is some room for the security aspect of the space programme, and in the technology section some applications are named, e.g. the atomic hydrogen bombs, but throughout the vision, principles, development plans or anything else, the Chinese government does not mention military application of space technology. Since the military aspect is not being mentioned throughout the text, it can be said that this absence is indicative of the discourse that the Chinese government tries to create of a peaceful country.

Before I move on to analysing the next source, there are a few specific discourse fragments of the white paper that I would like to discuss.

Two times in the text, a country's space programme is linked to social progress. The white paper states that a country's space activities are an important driving force for social progress, and that therefore the development of space activities are a strategic choice.[46] This is indicative of the fact that the producers of this text could be of the opinion that a strong space programme is an indicator of a country's social progress.

The second fragment encompasses China's dream to become a space power as part of the 'China Dream', introduced by Xi Jinping. In the 'purpose' section of the white paper is stated: "To explore the vast cosmos, develop the space industry and build China into a space power is a dream we pursue unremittingly." China is pursuing the goal of becoming a space power, and wants to be acknowledged as such. The term 'dream', while they could also have chosen 'goal' or 'aim', fits in this larger narrative of "China Dream", which people might associate more with a peaceful wish, instead of a strategic strength. The quote itself is in the white paper positioned as a quote (using quotation marks), but has not been used before in speeches or other policy documents. It is difficult to dissect what the purpose is of making it a quote, but it could be to make it easier for e.g. foreign media, if they want to quote one sentence from the white paper, that they might have chosen that sentence.

Another discourse fragment corresponds to the key areas of future cooperation. Throughout the white paper China has emphasized peaceful cooperation based on mutual interest, and aimed at benefitting the whole of mankind. However, when it states the key areas for future cooperation, the first three points are: 1) Construction of the

[46] White Paper, preamble.

Belt and Road Initiative Space Information Corridor (BRISIC), 2) implementing BRICS joint initiatives, and 3) implementing APSCO joint initiatives.[47] The construction of the BRISIC is part of China's One Belt, One Road Initiative. This strategic initiative, launched in 2014, is China's common thread in its foreign policy, and through infrastructural investments on land and sea aims to connect China through Central-Asia and Europe with the rest of the world. This serves China's economic and geopolitical interests and amplifies China's power among his neighbours. The construction of the BRISIC will further improve and benefit the development of the OBOR. Two other observations are intensified cooperation in two regional organisations in which China is the leading country, and in which member countries are often developing countries.

When looking at textual features, the first thing that catches the eye, is the fact that the text uses 'we' to refer to the writer of the text ('we' is used ten times in the text). The use of 'we' in a policy document gives a sense of community, as if the text is on behalf of all the Chinese people, and is a collective aim.

These discourse fragments and discourse strands from the white paper together form a unitary picture, that features the image of China as a technologically advanced country, that pursues space exploration by peaceful means (by stressing legal frameworks for peaceful space exploration and avoiding mention of the military use of its space programme) and expects other countries to do the same. It strives towards intensified cooperation, but mainly to cater to its own interests in construction of the OBOR and regional cooperation organisations, while claiming that its space programme will benefit the whole of mankind. China wants to be acknowledged by other countries as a space power.

[47] White Paper, V (3.3).

Word Frequency in White Paper on China's Activities in Space 2016

Word	**Frequency**
Cooperation	43
International	28
Technology	27
Peace	14
National	13
We	10
Mankind	9
Security	8
Independent/Self-reliance	7
Military/Defence	0

Figure 1

2.2. Xinhua Media Coverage

The discourse strands I dissected for the white paper also feature prominently in the analysis of media coverage on China's space programme.

Founded in 1931, Xinhua News Agency is China's official state news service and a Communist Party Central Committee organ. From its inception, Xinhua has had the dual role to report news and to disseminate Party and state propaganda.[48] In the last decennium, Xinhua has expanded its reach globally to opening more bureaus in different countries and setting up its own online English-language news channels as a new source of information for global audiences. In this section, I will analyse the discourse strands and discourse fragments featuring in Xinhua news articles on the Chinese space programme of the months April, May and June of 2017 in order to avoid "cherry-picking". I have categorised any article published in these three months by Xinhua News Agency as reporting on China's space programme when the article features China's space programme, China's presence in space, China's plans or ambitions in space, or China's space technology. Although I acknowledge that three months of media coverage on the Chinese space programme is too short to make substantial observations about the

[48] Shambaugh, David (2013), p. 228.

intended message, I do argue that the material will suffice in my aim to provide a clear picture of the primary message, because 1) in a short period of time, a common thread through these articles already become apparent, and 2) messages are reiterated through various articles in a short period of time. The news articles are accessible on the Xinhua website, and written in English, targeting a global audience. I have divided the discourse strands into five categories.

1) China as a technologically advanced country

The narrative of a technologically advanced country turns up in the news articles as well. Under the rubric "Science and Technology" on the Xinhua News Agency website, in two weeks (picked random) the space programme is mentioned in nineteen out of forty articles.[49] That means that of all the articles about science and technology almost half is dedicated to the Chinese space programme. The image is projected through emphasising China's achievements in space, making a country's space programme a symbol for its scientific and technological strength.

2) China aiming for cooperation

Peaceful cooperation and willingness to cooperate with other countries is another discourse strand that features prominently in the news articles I analysed. Whether it is President Xi Jinping, first Chinese Astronaut Yang Liwei, the director from CNSA, or experts from the Institute for Manned Space System Engineering, they all emphasise the need for international cooperation. One of the articles state:

> *"Xi noted that progress in space science and technology will benefit people around the world and China wants to use space exploration achievements to create a better future for mankind."*[50]

This segment yet again stresses how the space programme will benefit the whole of mankind. The willingness to cooperate is reflected in China's plans for its space

[49] In the week of 10 till 16 May and 1 till 7 June.
[50] Xinhua article "*China Focus: Space race or cosmic cooperation? China strongly calls for the latter",* 7 June 2017.

station. In the articles, published by Xinhua, regular updates are given as to the progress the space station mission is making. China's space station is set to be completed in 2022. China is busy with preparations for this space station by sending modules and other parts of the space station to the already existing space lab Tiangong-2. Almost all articles concerning this space station emphasise how China will be the only country with a space station after 2024. Here I quote:

> *"As the International Space Station is set to retire in 2024, the Chinese space station will offer a promising alternative, and China will be the only country with a permanent space station."* [51]

By stressing the uniqueness of having its own space station, China is not only building a foundation for future cooperation on Chinese terms, but also indicating, by using 'a promising alternative', how it might be necessary for other countries to cooperate with China.

3) China as a developing country

Another article[52] states that China has made an agreement with the United Nations Office for Outer Space Affairs to open its space station, planned to be launching into orbit in 2022, to other countries, especially developing countries, for payload experiments.

> *"Under the framework, China will open its experimental resources on the Chinese space station to serve payloads from other countries. UN members, especially developing countries, could conduct scientific and technological experiments on Chinese space station, Wei said."*[53]

This amplifies the projected image of China as an advocate of developing countries' right to explore space.

[51] Xinhua Article *"China's cargo spacecraft completes second docking with space lab", 19 June 2017.*
[52] Xinhua Article *"China to open space station to scientists worldwide",* 8 June 2017.
[53] Ibid.

4) Little attention to military purposes

In the news articles, the focus is on civilian use of the space technology, rather than on the military use. When articles do mention it, they discuss how the space programme will add to national security. That does not mean that the military use of the space programme does not exist: it is merely not highlighted, suggesting that this is not the image China wants to project.

5) Space Dream

Even more prominently than in the white paper, the Chinese progression in space is symbolised as a 'space dream of the Chinese people'. In response to all the major Chinese achievements in space, Xi Jinping has referred to them as a "dream". When astronauts were sent off to the space lab in 2013, Xi said "Developing the space program and turning the country into a space power is the space dream that we have continuously pursued."[54] During a video call with the astronauts, he said: "The space dream is part of the dream to make China stronger. With the development of space programs, the Chinese people will take bigger strides to explore further into space." By reiterating the "space dream" narrative, China is integrating it in its discourse, and projecting it as a more peaceful aspiration.

2.3 Collaboration in Space

As the third layer of public diplomacy, collaboration is an important tool in projecting an image, as it shows a country's willingness to exchange views and knowledge which requires a trusting attitude. As we have seen in the previous sections, China is already working hard on expanding its collaboration in space, and has since

[54] Xinhua article *"Xi Jinping's vision for China's space development",* of 24 April 2017.

2011 signed 43 space cooperation agreements or memoranda of understanding with 29 countries, space agencies and international organizations.[55] This cooperation covers bilateral and multilateral cooperation. Some are purely exchanging science and technological knowledge; others are to jointly work on a space project. There is also commercial cooperation, where China exports satellites or is launching communication satellites for other countries, or where it sets up joint commissions. In this section I will analyse these different forms of cooperation.

First of all, China emphasises its active participation in multilateral fora, such as the International Astronautical Federation, the International Committee on Space Research, International Academy of Astronautics and the International Institute of Space Law. China also states as the first fundamental policy in space cooperation that everyone should work within the framework of peaceful space exploration of the United Nations. By projecting an image of a country that abides by international space fora rules, China looks more benign and less of a threat.

Within the mechanism of the China-Europe Joint Commission on Space Cooperation, China and the European Space Agency have intensified their cooperation in the field of deep space exploration and worked together on the Dragon programmes.[56] In addition to Europe, China has also intensified space cooperation with Russia in deep space exploration, manned spaceflight, earth observation, satellite navigation, space-related electronic parts and components, and other areas. Apart from the above-mentioned bilateral agreements, China has other bilateral agreements with various countries. We can make an interesting observation when we look at China's outline for future cooperation, where less attention is placed on bilateral cooperation, while usually that is China's preferred method of solving disputes, and more focus on cooperation within a multilateral framework, such as the BRICS and APSCO. This does serve one of the most important components of public diplomacy: relationship building. When building long-term relationships with your target audience, you have a better chance of getting the meaning of your message across.

[55] White paper, V (2).
[56] The Dragon Programme covers more than ten years of cooperation between China and the European Space Agency on more than fifty thematic projects, such as collecting data for geo-science applications on land and sea.

Within China's cooperation efforts, we see that China does not neglect developing countries, as reiterated in speeches and in the white paper. China claims that it supports developing countries in realising their own space dream, but what we see in the actual cooperation process is that China mainly has an ongoing commercial connection with them. In the last two years, China has exported satellites and launched Nigeria's communication satellite, Venezuela's remote-sensing satellite-1, Bolivia's communications satellite, Laos' communications satellite-1 and Belarus' communications satellite-1.[57] This evidently shows that in terms of cooperation, China wants to project a more positive image of wanting to help developing countries pursue their space dream, without forsaking its own interests in making it a commercial cooperation. This ties into the next point.

In the fundamental policies of international cooperation in space, the principle that China emphasises is that in bilateral and multilateral cooperation, cooperation should be based on common goals and should serve the One Belt, One Road initiative.[58] One of the new policies China is implementing is the construction of the Belt and Road Initiative Space Information Corridor. Consequently, China is expanding its One Belt, One Road Initiative to space. This space information corridor includes earth observation, communications and broadcasting, navigation and positioning, and ground and application system construction. This form of cooperation serves China's strategic and economic goals in this field. This use of China's space programme to support the One Belt, One Road initiative, could arguably show that the Chinese space programme foremost serves China's national interests.

Lastly, as we have already seen, China is keen on inviting other countries to work together on its new space station, which is expected to be completed in 2022. China has already signed an agreement with the United Nations Office for Outer Space Affairs to create the framework for this cooperation. The plan is that other countries could conduct scientific and technological experiments on board the space station. I would again like to stress that the projected image is that of a welcoming country, allowing other countries to use their space station. As the dynamics of master and guest change, China could have a paramount role in space when countries are using their space station.

[57] White Paper, V (3).
[58] White Paper, V (3.3).

2.4 Additional Observations

Before I move on to the synoptic analysis of these public diplomacy sources, there are two more aspects of China's public diplomacy with respect to its space station that I would like to discuss.

We have seen that communication through texts creates discourse. There is another element that can also be used to enforce a certain image, namely: symbols. I would like to briefly elaborate on the chosen names for space missions, rockets or satellites in China's space programme, as these all enforce an image through symbols.

The first satellite that China launched in 1970 was called the *Dongfang hong*, meaning: "the East is Red". At that moment China was in the middle of the Cultural Revolution, initiated by Mao Zedong to purge the party from rightists or 'contra-revolutionaries', and celebrating communism. "The East is Red" refers to a popular communist song around that time.

China's lunar programme has been very successful;, the lunar mission itself is called *Chang'e*, referring to the queen of the moon in Chinese folklore, and the moon rover *Yutu*, "Jade Rabbit", is also part of a Chinese story. The carrier rockets *Changzheng* are named after the Long March, a journey where the communists escaped from the Jiangxi Mountain area, and ended in them setting base in Yan'an.

All these names reflect China's pride in its national history and culture. Although this is a useful tool in nation building, the question whether this also resonates with an international public is hard to perceive, since there might be little shared values or common history from the perspective of the international public.

Another element of the Chinese government's discourse on its space programme is the introduction of China Space Day. In this section, we will see how this event uses symbolism and is used as a tool for strengthening nationalism.

China Space Day was introduced on 24 April 2016 by the CCP Central Committee and the State Council to commemorate the launching of China's first satellite *Dongfang hong-1*. The China National Space Administration (CNSA) and the State Administration of Science, Technology and Industry for National Defence (SASTIND) are responsible for the coordination of activities around this event. This annual event was designated to stimulate enthusiasm for innovation and science in space, especially amongst children

and university students in order to inspire them to become the next generation of space scientists, and to celebrate China's achievements and goals in space. Throughout China, events were held to serve these goals, such as space exhibitions, and speeches by Chinese astronauts and space scientists. On the first China Space Day, President Xi Jinping issued instructions in his speech "exploring the vast universe, developing the space industry and building a great space power".[59] In his speech, Xi encouraged the country's aerospace scientists and engineers to usher in a new chapter in aerospace development.[60] He also proclaimed that becoming an aerospace power was China's space dream. By reiterating China's achievements in space and focusing on the new generation of space scientists, China projects an image of a technologically strong country that put its mind to continuing investments in the space industry. They use stories from (former) astronauts to describe life aboard a space lab, and how the application of space technology can contribute to economic and social development. By focusing on the soft elements in their space power instead of the hard elements, they create a more positive image abroad and domestically.

This also touches on China's public diplomacy system, because it does not differentiate between foreign outreach and domestic communication. Ingrid D'Hooghe writes that "Domestic outreach not only contributes to the quality and legitimacy of foreign outreach, but is also regarded as a tool for strengthening national unity and encouraging the government to take the people's interests into account."[61] In this regard, the space programme is used as a tool for strengthening nationalism and symbolising the road of success the CNSA is on.

2.5. Synoptic analysis

What do the three sources of China's white paper on space, Xinhua News Agency coverage and China's collaboration tell us about the intended image the Chinese government is trying to project and the discourse position it takes? In the previous analysis we have seen that through public diplomacy China projects a benign image of its space programme. It puts an emphasis on international cooperation in abidance with

[59] http://www.globaltimes.cn/content/1044024.shtml.
[60] Ibid.
[61] D'Hooghe, Ingrid (2014), p. 130.

international space rules on peaceful space exploration, and expects of other countries to do the same. In space cooperation, China specifically acknowledges and takes into account the needs and rights of developing countries to explore space. Furthermore, by focusing on the benefits the space programme will have on the whole of mankind, China positions itself as a partner instead of a competitive player.

At the same time, some intentions seem to come to surface, apparent and hidden at the same time. First of all, when it comes to international cooperation and future policy goals, China puts its own initiatives and interests within the One Belt, One Road framework first. This is followed by the focus on regional space cooperation in a multilateral framework where China's position is strongest. Lastly, China emphasises cooperation on its future space station, signalling the importance of the fact that China will be the only country with a permanently manned space station.

Throughout the white paper and the media articles on the space programme, we gather that China wants to be acknowledged as an independent, self-reliant space power, wherein emphasis does not lie on the military applications of space technology.

In creating this discourse, a framework is created for cooperating with China in space on Chinese terms. Cooperation is desired, especially since international cooperation with China is limited to a certain level. Due to restrictions the US Congress has placed on NASA for cooperating with China in 2011, China cannot cooperate with other space agencies on the International Space Station. Furthermore, NASA is dominating some major joint projects, the most important ones being conducted on the International Space Station, but also other projects, such as a joint mission to Mars with ESA. China positions itself as a partner in space exploration, but commercial space activities so far target developing countries. China furthermore stimulates cooperation through a more active role in regional organisations, such as BRICS and APSCO.

3. The Pains and Gains of Power

In the previous chapter I have identified some distinct messages China is trying to project with respect to its space programme. In this chapter I will investigate how power is generated by China's space programme. I plan to do this by first using the analyses of a number of scholars, amongst whom Joseph Nye and David Lampton as a background for a discussion on power. A rarely challenged consensus is that power is delineated into three categories: coercive (hard), remunerative (economic), and normative (soft) power. Especially the latter has initiated a vociferous academic debate. I will hopefully contribute to this debate by discussing what both Western and Chinese academics have written on the subject, advocating for not differentiating between the different dimensions of power, and by concluding with my own thoughts on the issue. In the second section I will investigate the power dimension of the Chinese space programme.

3.1. Theories on Power

3.1.1. What is power?

Scholars have theorised about the notion of power for millennia. Plato (428-348 BC) describes in his *Republic* how power can be derived from knowledge, opinion or ignorance, and Machiavelli (1469-1527*)* wrote in his *Il Principe* about political power and how to make that reside within one person. Even less philosophically inclined people, like myself, have a sense of what power actually is: the ability to get what you want, or in more concise words "power is the ability to achieve one's purposes or goals through threat, payment or attraction.".[62] In this definition the division between various forms of power already becomes clear, which Amitai Etzioni describes in more detail as coercive, remunerative, and normative power.[63] Coercive power or hard power relies on the application or the threat of application, of physical sanctions. These coercive instruments can be military force or, in diplomatic relations, international isolation. Remunerative power concerns all money or material resources that can be converted to power. An example of this power is economic sanctions. Because economic power is also

[62] Nye, Joseph (1997), *Bound to Lead: The Changing Nature of American Power*, Public Affairs, p. 62.
[63] Etzioni, Amitai (1971), *A comparative analysis of complex organisations*, The Free Press, p. 5.

used in a coercive way, we already see an overlap between the different dimensions of power.

The third dimension of power is normative power, which also set off the biggest explosion of scholarly discussion about the concept. Etzioni's definition states that normative power "relies on the capacity to motivate through the force of ideas and win compliance through creating group norms with which individuals wish to identify."[64] David Lampton's similar notion of "ideational power" which adds to the concept of normative power emphasises the fact that power derives from human intellect, power expressed in the creation and dissemination of knowledge and compelling ideas.[65] Joseph Nye explains his term "soft power" as "the ability to get what you want through attraction, or to make people want a similar outcome as you."[66] In all cases, this form of power is about attraction that can be converted to power. But even more so than the ability to decide an outcome, it is about the ability to define an outcome and set the agenda. Especially in international plethora this is a very useful resource, because seduction is more effective than coercion. Within these three dimensions of power, there exists a constant interplay with different dimension reinforcing or weakening the other. As mentioned before, economic sanction fits into the category of remunerative power, but can feel very coercive or be used in a coercive way. While some actions strengthen one form of power, they weaken the other. When the Soviet Union launched the satellite Sputnik in 1957, their soft power grew, because people were attracted to the science prestige, but their hard power grew as well, as they were able to deploy warheads on top of those rockets. In this sense, hard and soft power sometimes reinforce and sometimes interfere with each other.

The concept of soft power is ideologically charged and has its roots in the West. When in the nineties the United States were faced with an apparent decline in power, the American political scientist Joseph Nye tried to explain this decline by claiming that the US's power had actually not diminished; although their hard power had declined, they had gained a more abstract form of power that made other countries want to follow their example by an attracting force.[67] This is what Nye calls "soft power": through this power you could obtain the desired outcome by people wanting to follow your

[64] Ibid.
[65] Lampton, David (2008), *The Three Faces of Chinese Power*: Might, Money and Minds, University of California Press, p. 10.
[66] Nye, Joseph (2004), *Soft Power: The Means to Success in World Politics*, Public Affairs, p. 2.
[67] Ibid., p. 20.

example.[68] He made some suggestions to the American government on how to improve its soft power or combine the different forms into a *smart* use of power. It only took a few years for this concept to become a hype throughout the world, with scholars writing about and researching soft power and governments implementing entire strategies to strengthen its nation's soft power. At the same time, soft power became a tool in itself that countries use to compete against each other. I primarily take two issues with the notion of soft power as a distinct form of power.

According to Nye, a country's soft power primarily derives from three sources: culture, political values and foreign policy. These sources ought to produce attraction, but whether this attraction in turn produces the desired outcome, is difficult to measure. This is the first point I find problematic in Nye's theoretical framework of soft power. Between producing attraction and using that attraction lies a very complex process, that I feel Nye insufficiently explains in his work. The second point I would like to address is the concept of "attraction" itself. Attraction differs per individual and per country. What one country may find attractive, another may find repulsive. To developing countries another country's massive economic rise may look very attractive, but when global warming is progressing dramatically, the country that invests most in sustainable development, looks more attractive. A conclusion could also be that the things any soft power resource produces, are more concerned with prestige. People may look up to a certain country, e.g. because of its fast economic rise or great military force, but are not necessarily attracted by that country's political models. The prestige is something they acknowledge and respect, but they still do not want to follow their example.

I therefore argue that any distinction made between soft and hard power is a theoretical one. It does not matter whether it is driven by attraction, prestige or other motives, that people want to follow another country's example or let that country be in charge of the agenda-setting in international affairs. This power might be used in a soft way, but the power that is felt by the people on the receiving end might still feel coercive, even on a subconscious level. This could contribute to an interdisciplinary debate on whether this creates an environment where the feeling of power is already determined (determinism) and therefore is actually a coercive force, or whether people still decide for themselves whether they are attracted by a country (free will). As soon as power has implications in real life, it can no longer be called 'soft'. William Callahan argues that soft

[68] Ibid., p. 22.

power is not a material entity that can be empirically measured, but a social construction.[69] I therefore argue that the distinction between soft and hard power is irrelevant when researching a country's power capacity.

3.1.2. China's views on soft power

Since China has become aware of the use of soft power as a tool for international competition, soft power has become an excessively debated, studied and talked about subject among academics and government officials in China. As an official component of the "Comprehensive National Power", proclaimed by Hu Jintao in 2006, soft power features prominently in China's national strategy. It is employed by the Chinese government as a tool for improving its image, but it is also perceived as an indicator of world status.[70] In this regard, it has become a goal in its own right. Callahan proclaims that soft power in China is primarily employed as a tool in domestic policy rather than in foreign policy.[71] This means it is mostly concerned with safeguarding the regime's legitimacy at home, while also seeking to build favour among foreign audiences.

Opinions of various Chinese academics on the subject range from positive about China's capacity to exert soft power on the global stage to negative, claiming that China's soft power is underdeveloped.[72] I will discuss the opinions of two Chinese academics. Mingjiang Li describes soft power as "not existing in the nature of certain resources of power, but rather it has to be nurtured through a soft use of power. It has to be intentionally cultivated through prudent use of all sources of power available in certain social relationships."[73] He argues that certain power resources can generate both hard and soft power. An example is a country's military strength, which can generate hard power when used coercively, but soft power when it is used in peacekeeping operations. Therefore Li opts for a 'soft use of power' approach.[74] Yan Xuetong proposes that a country's political power should be the core of soft power strategies.[75] By this, he means

[69] Callahan, William A. (2015), "Identity and security in China: the negative soft power of the China dream", *Politics*, 35 (3-4), pp. 216-229, p. 2.
[70] Li, Mingjiang (2009), *Soft Power: China's Emerging Strategy in International Politics*, Lexington Books, p.3.
[71] Callahan, William A. (2015), p. 5.
[72] See: ibid. p. 5-6 for an overview of the view of various Chinese academics on the subject.
[73] Li, Mingjiang (2009), p. 4.
[74] Ibid., p. 7.
[75] D'Hooghe, Ingrid (2014), p. 112.

the political support the people of a country give to their government. The fact that the people stand behind their government, increases a country's capacity, and functions as an attractive force. The fact that soft power is strategically employed by the Chinese government and heavily debated amongst academics refutes the view of American scholars and politicians that China does not understand soft power.

3.2. The Power of the Chinese Space Programme

Now that we have obtained a solid understanding of the notion of power, I will look at how power is generated by the Chinese space programme. Since it is a very broad subject to look into how power is generated, I will merely address the most important and primary aspects of China's space programme that are able to generate power. This is necessary to and will be a crucial component in answering my sub question "how does China's behaviour on the world stage differ from its projected image through public diplomacy?".

The statement that every country's space capability is able to generate power is a given fact, since there are both military purposes as well as power projection involved, which are an inseparable component to a country's space programme. The most tangible and apparent form of power is military power, which is primarily employed in four ways: homeland defence, reassurance, deterrence, and power projection.[76] I will briefly elaborate on the use of China's space programme in these four functions.

Homeland defence secures China's independence and national security. The Chinese space programme serves this purpose due to its military capacity. In an age where informationalised warfare is slowly replacing conventional warfare, China possesses an important tool of communication and intelligence satellites.[77] With the United States relying for 75% to 80% of their intelligence and communication on space assets, power is derived from the capacity to incapacitate or manipulate those assets.[78] Space capabilities also possess a strong deterrent value. Deterrence concerns itself with

[76] Lampton, David (2008), p. 45.
[77] Ibid., p. 56.
[78] https://www.theguardian.com/science/2016/aug/28/china-new-space-superpower-lunar-mars-missions.

dissuading an opponent to do something instead of using threat to persuade one.[79] China's ASAT-systems (anti-satellite systems) that are capable of destroying or incapacitating in-orbit satellites or China's launch sites that could launch missiles instead of communication satellites could deter other countries to launch an attack on China, or to do something China dislikes. Power projection is another important part of China's space programme. Even when power is not used in a coercive way, it is still able to project power that also has real life implications. On the first China National Space Day, president Xi Jinping called on the country's scientists to help realise China's dream of becoming a "global space giant". This power projection is further strengthened through military diplomacy, in which China initiates joint exercises, port calls or cooperative missions. Coercive power can be used either offensively or defensively. China uses its space programme defensively to demonstrate power. The last use of military power is reassurance. China's space programme can be used as reassurance to neighbouring countries, by letting countries along the One Belt, One Road use the Beidou-navigation systems. Reassurance is also a necessary goal, as China's neighbouring countries are still wary of China's behaviour and interests in the region.[80]

Besides military power or the projection of military power, the Chinese space programme also generates economic power, that serves China's economic interests. By launching payloads for other countries, investing in new commercial launching pads on sea, and inviting other countries to work together on China's future space station, China is able to establish the rules for economic cooperation and do things on China's terms.

One goal imbedded in China's power projection is to be able to create national prestige. China is very sensitive to international perceptions and hopes the projection of both military power and power generated through civilian projects, such as a moon landing, will add to China's national prestige and will help China become a space super power.

All of the above-mentioned resources add to China's power and power-projection capabilities, and directly influence its regional position as well as its position on the global stage. As we have seen, demonstrating power is omnipresent in China's space programme. In the next chapter, I will discuss the strategic implications of China's space programme.

[79] Lampton, David (2008), p. 49.
[80] Ibid., p. 61.

4. Space Competition or Useful Coalition?

In the previous chapter we have seen the different ways in which the Chinese space programme is capable of generating power. While some aspects of the Chinese space programme have a softer use, other aspects feel more threatening or coercive. My conclusion is that most of these aspects entail power projection. While we do differentiate between hard and soft power, the line we draw is theoretical. In this chapter I will look into the strategic aspect of China's space programme and explain how China's behaviour on the world stage does not always match the image it is trying to project. I will do this by looking at some recent events and developments that underline this divergence between image and behaviour. Consequently, I will look at the use of China's space programme from a strategic perspective. In the second part of this chapter, I will speculate on whether these developments could lead to a global power shift and what a new space age would look like.

4.1. Strategic perspective

4.1.1. What's going up?

In recent years, China's space programme has been attracting more and more attention and has become more visible, not only to academics and government officials, but also to a broader international audience, with media reporting on different space activities, achievements and ambitions, while at the same time still clouding itself in secrecy. While some of these activities or actions reinforce its projected image, others contradict it. In the following section I will discuss some of these actions or events that contradict China's projected image.

While this is an apparent part of its space programme, the Chinese government does use its space technology for military and security purposes, further explained in a white paper on China's military strategy published in 2015.[81] The white paper on China's military strategy states: "*Outer space has become a commanding height in*

[81] *White Paper on China's Military Strategy*, published on 27 May 2015 by the State Council of the People's Republic of China.

international strategic competition. Countries concerned are developing their space forces and instruments, and the first signs of weaponisation of outer space have appeared. (…)China will keep abreast of the dynamics of outer space, deal with security threats and challenges in that domain, and secure its space assets to serve its national economic and social development, and maintain outer space security."[82] To secure its national security interests, China is investing in air-space defence force structures, air and missile defence, information countermeasures, and airborne operations. I must emphasise that this is not a unique fact or an endemic aspect of China's space programme, as other countries, e.g. the United States, also use their space programme for military and national security purposes.

In August 2016, China announced that it had launched the world's first quantum satellite, which has the ability to use hack-proof communication systems.[83] This means that messages can be transmitted securely without risks of falling in the wrong hands. Xinhua News Agency reported about this achievement that "these were enormous prospects for the use of such technology in fields including defence, military and finance."[84] A recent trend in military development is the focus on informationisation of war. Some scholars think that all future wars will be fought in the ether using information and intelligence instead of actual military forces and are seen as a strategic requirement for any war. The realisation of this quantum satellite is a big step for China in the field of IT, and will certainly help China in any possible future informationisation war.

Another mission that raised eyebrows amongst the international public and came under scrutiny because of its nature, was the Aolong Mission. The Aolong spacecraft that was launched in August 2016 has a robotic arm that can reach another satellite and guide it to burn up in the Earth's atmosphere. This means that while it is officially to remove space debris from orbit, it could also be used as a weapon, bringing down a rival's satellite.[85] Together with the Yaogang missions, consisting of a series of remote

[82] Ibid., p. (IV).
[83] https://www.theguardian.com/world/2016/aug/16/china-launches-quantum-satellite-for-hack-proof-communications.
[84] http://english.cri.cn/12394/2016/08/16/4202s937644.htm.
[85] https://www.theguardian.com/science/2016/aug/28/china-new-space-superpower-lunar-mars-missions.

sensing satellites, this mission leaves room for debate on whether these satellites are for scientific or military purposes.

Other elements that are part of the weaponisation of outer space include exploiting the near-space "death zone" for military intelligence purposes. This is a region of the Earth's atmosphere that features prominently in countries' use of ASAT-satellites (Anti-Satellite systems) and spy drones. These ASAT-weapons are able to destroy or incapacitate satellites. China proved that their systems are capable of shooting in-orbit satellites by performing tests in 2008 and 2010, which was reported to have been a message to the United States to showcase China's military power.[86]

4.1.2 Strategic implications

What are the implications of this power generated by the Chinese space programme for China's strategic interests, and maybe even more importantly, how does this influence China's position on the world stage? Almost inherently linked to the Chinese Communist Party is the fact that we can never be sure what their interests or motives are behind a certain policy proposal, founding of a new institution or introducing a new strategy. There are however some observations that stick out and say something about China's strategic interests.

One of the most important interests and one that receives high priority, is the use of China's space programme for regional security. China is sometimes still seen by its neighbouring countries as a threat, and it has difficulty creating a solid sphere of influence in the region. Any regional allies are mostly in Central-Asia, such as "all-weather friend" Pakistan. China's relationship with e.g. Japan and South-Korea however remains difficult and is mostly of an economic nature. One of its top priorities is to build its national security system as a tool for power projection.

Another aspect that ties into this is China's relationship with the United States. Although they are each other's main trading partner, there still exists a sense of competition and suspicion that dominates this relationship.[87] When former American President Obama presented his "Pivot to Asia-strategy" as a renewed focus on East-Asia,

[86] https://thediplomat.com/2017/01/how-china-is-weaponizing-outer-space/.
[87] Walter, Andrew et Foot, Rosemary (2011), *China, The United States and Global Order*, Cambridge University Press, p. 2.

China regarded this as a way for the US to gain more influence in the region. China's main concern here is the Taiwan conflict. It fears that the US will interfere in case of an escalation into an armed conflict, and will back Taiwan with military support.[88] When president Trump made a phone call after he was elected to Taiwanese president Cai Yingwen, Beijing was watching attentively. The situation in the South China Sea does not improve things. The US has exercised different patrols in the disputed waters of the South China Sea party claimed by China, while China emphasises multilateral dispute settlements only with the countries involved that actually make a claim in that South China Sea.

Despite the abovementioned, I do not think that China is looking for a space war or coercive use of its military applications. Throughout the public diplomacy messages I have analysed, multilateral forums and international institutions, China is seeking out peaceful cooperation in space, and tries to get this in writing as much as possible through international treaties. The fact that the US withdrew from the Anti-Ballistic Missile Treaty in 2001 does not create an easier environment for signing treaties on space security.[89]

China's space programme is also a useful resource in strengthening cooperation through new partnerships and alliances. As we have seen in chapter 2, China increasingly focuses its cooperation on developing countries by launching their satellites, or by founding the APSCO with other developing countries. Consolidating influence through these new partnerships could translate to actual geopolitical power on the ground. This is a very tactical element of China's space programme, one that other space agencies, such as NASA and ESA, have not explored sufficiently. This underlines China's strategy of filling the gaps in the world that Western countries created by not paying sufficient attention the opportunities the countries provide. China is turning these opportunities into commercial successes as well, by building launch pads in sea and increasing the launches of commercial payloads.

The fact that space capability is seen as an indication of global-leadership status adds an element of competition to the countries pursuing this goal. China has repeatedly emphasised that one of its goals in space is to be recognised as a global space power, as we have seen in the analysis in chapter 2. Its relationship with India and Japan is partly

[88] Lampton, David (2008), p. 50.
[89] https://thediplomat.com/2017/01/how-china-is-weaponizing-outer-space/.

characterised by this race, as all three countries strive towards the goal of becoming a global space power. India plans to land a rover on the moon in 2018, something China has achieved in 2013.[90] The fact that Japanese astronauts are allowed to cooperate 400 kilometres in the air on the International Space Station, while the US congress forbade NASA to cooperate with or finance Chinese astronauts, is still sensitive to China.

In the last few years, China has invested heavily in creating a softer and more favourable image of itself through public diplomacy. Though we have seen that this image is not always accurate and does not reflect China's goals in space, it is also not an entirely false representation. I first want to emphasise that it is not odd that China tries to project this favourable image, because it is still struggling with negative perceptions of itself.[91] But to make this image more believable it should substantiate words with deeds. By becoming a player that is consistent in its actions as well as its principles, (mainly) Western countries might be more open to cooperation. To project a certain image might create goodwill amongst the international public, but as long as the image is not backed up by actions, it will not be effective. Therefore China should start practising what it preaches. To quote Harper Lee in *To Kill a Mockingbird*: "People generally see what they look for, and hear what they listen for." If this attitude changes, China might be perceived in a different light.

Furthermore, I think this power projection works as a deterrent and China would not actively use its military capability to coerce countries into doing something. It is still not comfortable in its regional influence sphere, even though it has invested heavily in creating more influence, like the building of a space corridor along the One Belt, One Road. China is using the civilian projects of its space programme to build prestige, and the military projects to project power.[92]

[90] http://www.scmp.com/news/china/society/article/1902837/chinas-first-mission-mars-will-be-hugely-ambitious-and-be-chance.
[91] D'Hooghe, Ingrid (2014), p. 51.
[92] https://www.cnbc.com/2016/02/18/chinas-space-missions-in-2016-tied-to-military-ambitions.html.

4.2. Does China's rise equal a global power shift?

What does this mean for China's position as a competitor in space power dynamics? Regardless of its projected image, China's space programme is growing at a high pace. As the third country to put a man in space, one of three countries to possess launch carrier rocket facilities, and the first country planning to send a rover to the far side of the moon, China is catching up with the other space powers. When it comes to space technology, China is already on a similar level with the European Space Agency, closely followed by Japan and India.[93]

As we have seen in chapter two, China is very aware of its position in this space race. It does not want people to forget that in the future they might be the only country in possession of a permanently manned space station, as the International Space Station is planned to be decommissioned in 2024. Like other times when existing international institutions did not sufficiently cater to China's interests, it set up their own institutions, and will do the same with their space station, inviting other countries to cooperate by China's rules. In a very tactical timing, China plans the launch of their Mars rover in 2020, the same year that NASA and ESA in a joint-cooperation will launch their own Mars rover. With China leaning towards cooperation with Roscosmos and ESA now and in the future rather than with NASA, the United States might lose its leading position in space exploration.[94] With the commencement of the Trump administration in 2017, there have been some indications that the US is not ready to give up its leading position. On 29 June 2017, American President Trump signed an executive order to re-establish the National Space Council, after an in-active period of 24 years. The National Space Council is an advisory committee focused on developing a national space strategy and improving coordination between agencies with a stake in space operations.[95] During the announcement, Trump said: "We're going to lead again. It's been a long time, over 25 years, and we're opening up and we're going to lead again like we never led before. (…) The next great American frontier is space."[96] In addition to this, on 11 December 2017

[93] https://www.theatlantic.com/magazine/archive/2017/12/what-happens-if-china-makes-first-contact/544131/.
[94] https://www.bloomberg.com/graphics/2016-asia-space-race/china.html.
[95] https://www.washingtonpost.com/news/speaking-of-science/wp/2017/06/30/trump-relaunches-the-national-space-council/?utm_term=.4db8bba75c44.
[96] Ibid.

President Trump signed a new space policy directive that directs NASA to return to the moon, and eventually to Mars.[97] The president announced that this order would "restore American leadership in space".[98] The word choice of "restore" suggests that the US feel they have lost part of their influence in space, something that could be caused by China's increasing presence in space and filling the gaps the US has created , or because they simply want to regain international prestige and power by further advancing its space programme. NASA has scheduled some ambitions missions, and plans to send humans to Mars by 2033.

At the same time, Roscosmos is building a new launch site on its own soil, making its current launch pad Baikonur Kosmodrome in Kazakhstan, that Russia has been renting from the Kazakh government for the last fifty years, obsolete. Besides from being permanently represented on the International Space Station by its cosmonauts, Roscosmos has the second-highest number of launches per year after China, and also closely cooperates with China on different projects and knowledge exchange.[99]

Now that China is cooperating more closely on different space projects with ESA and ROSCOSMOS instead of with NASA, the ballast could lie more towards the Eastern side of the Atlantic instead of the Western hemisphere, and could mean that it is time for the United States to get past their suspicions about cooperating with China in space, lest they get left behind. Like an ESA-official said during the ESA Open Day 2017 in Noordwijk, "International cooperation is the only way through which we can explore our universe to the max. (…) If we turn it into a competition, there will only be losers."

Any global power shift is signified by a shift from one country to another in the prominence of shaping global order and establishing global norms.[100] The ability to help establish global norms and be part of the decision-making process in international affairs, is a defining aspect of being a super power. Whether China will achieve this in the near future, is a question Walter and Foot have researched by looking at the level of behavioural consistency with global norms of China and the United States.[101] Their

[97] https://www.space.com/39050-trump-directs-nasa-humans-to-moon.html.
[98] Ibid.
[99] https://gbtimes.com/china-russia-agree-cooperation-on-lunar-and-deep-space-exploration-other-sectors.
[100] Walter, Andrew et Foot, Rosemary (2011), *China, The United States and Global Order*, Cambridge University Press, p. 4.
[101] Walter, Andrew et Foot, Rosemary (2011), *China, The United States and Global Order*, Cambridge University Press.

conclusion was that China has a growing potential to shape the global order of the 21st century. Because it wants to be recognised as a great responsible power, it shows enhanced support for multilateral security frameworks, and shows a high level of behavioural consistency. The big exception is when the existing global norms run counter to China's domestic interests, e.g. when it had to make adjustments in order to join the World Trade Organisation in 2001.[102] Although domestic factors sometimes prompt China to depart from the global norms, it also feels that a commitment to these global norms will improve its legitimacy and discourage other from attempting to destabilise its political system, or to constrain its choices.[103] On the other hand, while the United States have always been an important source of norm elaboration, it does show a tendency to depart periodically from global norms that it helped to establish.[104] This inconsistency with global norms derives mostly from its unilateral exercise of force and, like in China's case, unwillingness to abide by rules that run counter to its domestic interests or when they constrain policy choices.

With respect to China's space programme, I agree with Walter and Foot that China will remain within the global normative framework. China indicates to do so by complying with global norms of peaceful cooperation in space and showing its support for multilateral frameworks of the UN and other organisations on space security. China is becoming an increasingly important player in space, one that not only follows, but is also starting to set a precedent by choosing a different path upwards. The statuses of rule-follower and rule-maker are not mutually exclusive. While I think the top priorities of its space programme are national security and using it as a symbol for global power, they are not quite ready to replace the United States as a major space power yet. Technologically, they still have miles to go before they get to that level. The same thing is true for their capability of exerting influence on an international level. Although it will be a while before they are able to surpass the United States, they do challenge the status quo of space power dynamics by setting up their own space cooperation organisations, helping developing countries launch their satellites, developing ground-breaking technology and providing an alternative to the International Space Station in the future. I think it is important that China continues to make an effort to project a positive image

[102] Ibid., p. 275.
[103] Ibid., p. 278.
[104] Ibid.

of its space programme towards the international public. Nobody likes a bully, and even less so a bully with too much power.

Conclusion

China has made enormous strides since the past decennium in advancing its space programme to serve its national strategic interests. In order to project a more favourable image of itself, China has featured its space programme as a crucial part of its public diplomacy strategies. This thesis tried to investigate the use of the Chinese space programme in public diplomacy strategies by analysing the projected message through public diplomacy sources, focusing specifically on power projection. In order to analyse this message, I chose to study the White Paper on Space Activities published in 2016, Xinhua News Agency media coverage on the Chinese space programme and Chinese collaboration in space. Although I acknowledge that these sources form a foundation that is empirically thin, I have argued that they are nonetheless able of providing us with the general message that is projected through these sources.

The message projected through public diplomacy can be divided into five distinct categories:

- China as a technologically highly advanced country. In the white paper and the Xinhua media coverage, China emphasises its technological achievements in space, showcasing expertise and authority.
- China as a peaceful player on the world stage. By affirming its willingness to abide by the international laws on peaceful space exploration, by its confirmation to peacefully cooperate in space, and by its claim that their space programme does not only benefit China, but the whole of mankind, China projects an image of a peace-loving country, which is reinforced by the fact that China calls its plans in space a “space dream”.
- China as a developing country. As part of a larger discourse, in the field of space exploration China also projects an image of a developing country. China reinforces this by emphasising equal rights to explore space, and specifically standing up for those rights of developing countries. China also aims to help other developing countries to realise their space dream by launching or exporting satellites.
- By understating the military aspect of China’s space programme, China positions itself as a partner instead of an enemy.

- By comparing itself with the other space powers in media articles, and reiterating how China could be the only country with a space station in the future, they show a competitive element to space exploration.

An interesting sub question that arises when having obtained a coherent picture of the projected image, is whether this image differs from China's behaviour on the world stage. I have answered this question by looking into China's military as well as the strategic use of its space programme. We have seen that the favourable image China projects as a peace-loving nation that is open to cooperation and pursuing goals that will benefit mankind is contradicted by the hard fact that it uses its space programme for military and security purposes. It is trying to increase its influence and building alliances by launching satellites for developing countries and setting up space cooperation organisations with developing countries. By investing in these alliances and projecting both power and prestige through its space programme it arguably tries to gain geopolitical power in the region. Because of the shift from conventional to informationalised warfare, China is preparing itself by investing in intelligence and surveillance satellites and has achieved to turn some of its space assets into hack-proof system. Consequently, I have briefly discussed how China's rise as a space power will change space power dynamics, and whether it will cause a global power shift. I have argued that although China has become one of the most important players in space competition, it is not yet on a similar level with the United States and the European Union when it comes to space technology and exerting influence. It wants to be acknowledged as a global space power and treated as such.

With respect to the question whether this means that China will help shape a new global order or establish global norms, I have argued that that China will remain within the global normative framework and that it concerns itself primarily with wanting to be acknowledged as a responsible great power and a space power. Rule-follower and rule-maker are not mutually exclusive statuses, and China could both abide by existing international norms, while also creating new norms by setting up its own organisations and establishing rules of cooperation for its future space station.

A space competition is taking shape, and the outcome could determine our global order in the 21st century. The board is set, and the pieces are moving. It will be interesting to see how the new space policy directive, signed by American President Trump on 11 December 2017, will unfold, and how this will affect international space

cooperation. The fact that the President has announced that "American greatness and leadership in space will lead us to once again launch American astronauts on American rockets from American soil" does not indicate any plans for closer cooperation between the US and China.[105] With China's own plans to achieve similar goals the United States have set, the space competition is not yet decided.

The aim of this thesis was to provide a clear picture of the image China tries to project of its space programme through public diplomacy strategies, and how this image differs from China's behaviour on the world stage. Although China emphasises its role in space as a peaceful player, pursuing cooperation and knowledge that will benefit mankind, I have argued that it uses its space programme primarily to serve its economic and political interests, and tries to translate its space programme to geopolitical power on the ground. By focusing on how power is generated my thesis fits in a larger scholarly debate, to which I hope I have contributed.

I would like to conclude with the idiom "space is the final frontier". Countries who take the lead in exploring this frontier could also take the lead when it comes to solving international issues, setting international agendas and making decisions that will affect the entire world. Whether China is up to this challenge, is a question for future scholars to research. We will have to wait and see what the future brings, but one thing is certain: if a new space race does take shape, China is ready to compete.

[105] https://www.space.com/39055-trump-space-policy-moon-return-reactions.html.

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