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Great Power Cooperation on Climate Change: A Defensive Realist Perspective

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Great Power Cooperation on Climate Change: A Defensive Realist Perspective



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Introduction

The world needs radical action on climate change (CC), which has been avoided for far too long. The scientific evidence is indisputable: CC exists as a threat to human and planetary health (Intergovernmental Panel on Climate Change, 2022, p. 35). Previous studies on CC cooperation have focused on institutional and multilateral approaches and have under-theorised the role great powers have concerning the issue (Seligshon, Heilmayr, Tan & Weischer, 2009). To achieve results in carbon reduction, the Great Powers, China and The United States, need to be incentivized to collaborate. Researching the conditions for great power cooperation on CC is thereby paramount for the world. Furthermore, it is vital to contribute to the theorising of great power behaviour because of their importance in world politics. The rise of great power competition has created diplomatic standoffs, trade wars, and delayed action on CC. This is argued to be a result of the great powers seeking relative gains and refrain from any interstate cooperation (Matejova, 2021). Regardless, positive outcomes are possible within strategic competition and geopolitics, and realism is not only a counsel of despair (Kotkin, 2018, p. 15). Hence, realist theory can support in explaining great power behaviour and can shed a new light on cooperation if applied to the issue of CC. Thus, this thesis seeks to analyse great power cooperation on CC through a realist lens, where first, previous literature on the topic will be reviewed. Second, it will establish a theoretical framework for conceptual and theoretical clarity. Third, the research design will be described and justified. Finally, the thesis will analyse international relations (IR) literature and empirical records to answer the research question. In conclusion, it is argued that under certain conditions, great power cooperation on CC is possible through a defensive realist lens. Opportunities for collaborative action on CC can therefore be of self-interest to the great powers.

Literature Review

Climate Change as a threat to national security

Literature on CC is increasingly presenting the latter as a threat to both national and global security. National security no longer purely revolves around domestic issues (Sussex, Clarke, & Medcalf, 2017). National security is at the core of both domestic and international politics and provides a conceptual lens for understanding and coping with emerging issues in a connected world (Sussex, Clarke, & Medcalf, 2017). The effects of delayed action on climate change are upon us and will only worsen. States will need to deal with extreme CC induced

weather events and their consequences on “health, food security, water availability, insecure livelihoods, distress migration, and more” (IPCC, 2022). A continued lack of action will also result in social instability such as, political violence, population displacement and in turn mass climate immigration (Pazzanese, 2021). Additionally, rising sea levels and extreme weather events will affect military operations and thus national security (Pazzanese, 2021). Therefore, CC and its impacts can be considered to pose threats to national and global security. Indeed, the United States (U.S.) government has recognized CC as a threat to its national security (White House, 2014).

As such, CC is argued to be a global threat and a transboundary issue. Some authors even argue that climate change is the greatest threat to the long-term interests of all states (Lieven, 2020). An alarming transboundary threat is asserted to require transboundary solutions (Carter, 2010, p. 54). Therefore, CC as a threat poses direct and indirect effects to all states (Koch, 2018, p. 35), and prompts states to align themselves collectively to balance out the threat (Heffron, 2015). Referring to the securitization theory, an issue that is dangerous and alarming, such as CC, needs to be moved beyond regular politics (Eroukhmanoff, 2018, p. 1). States are the highest actors in world politics (Waltz, 1964), and the most important actors in contribution to CC (Bernstein, 2021). However, states have been reluctant to act on CC and the world is far away from the right course in limiting global warming. CC is argued to be unsolvable without international cooperation, however it is unclear how this can be achieved in practice because of the international system of anarchy and selfishness (Lieven, 2020 & Matejova, 2021). Interstate cooperation on CC has been received with scepticism. However, the danger posed by CC could outweigh the concerns of cooperation (Heffron, 2015).

CC cooperation has been met by reluctance and scepticism amongst the great powers. First and foremost, international institutions have argued for CC cooperation with ethical and universalist arguments, as well as the literature has (Brenton, 2013). These arguments do not appeal to the great powers as cooperation rarely occurs unless it benefits them relative to others. Further on, the current great power struggle is a result of the transition in the international order with China rising as a great competitor to the U.S. This struggle has prevented both large-scale action on CC and the removal of deadlocks to cooperation (Terhalle & Depledge, 2013). Nevertheless, the importance of great power involvement is still as crucial for effective climate action. This is because great powers have a disproportionate ability to address CC and their financial and technological capabilities are larger than other states (Bernstein, 2020). CC cooperation depends on great powers pooling

their resources to provide structural leadership and to achieve an effective ecological transition (Grundig, 2015). To illustrate the importance of great power cooperation, it was the lack of acquiescence from the U.S. that caused the final barrier to achieve coordinated international agreements in Rio, Kyoto, and Copenhagen (Brenton, 2013). The arguments for the involvement of great powers are coherent. However, there is a gap in understanding the behaviour of great powers that would lead them to cooperate on the issue of CC.

Realist lens on cooperation

CC has been situated as an immersive global and national threat that requires cooperation amongst the great powers. Realism has proven useful in explaining state responses to threats (Heffron, 2015). Realism does not provide a security agenda that aims to tackle CC cooperatively. One of the main reasons for this is that CC is a global problem which requires extensive global cooperation. (Heffron, 2015). Realism is, to an extent, quite dismissive of interstate cooperation and the ability of international agreements to have an impact on state behaviour. However, both are a necessity to deal with the threat of CC (Carter, 2010, p. 55). Investigating realism and how it views cooperation can help fill the gap of realist theory on environmental cooperation. Thus, three different strands of realism will be examined in how they view cooperation: neoclassical realism, offensive realism, and defensive realism. Neorealism will not be accounted for based on the work of Paterson (2000) and Donnelly (2000). They argue that neorealism is inadequate in explaining CC cooperation because it does not account for the influence of domestic actors, international norms, and its questionable ontological foundations that deny change and political transcendence (Paterson, 2000; Donnelly, 2000).

As such, the first body of literature will be reviewing neoclassical realism and how it views cooperation. Neoclassical realism asserts that international relations are determined by both systemic and domestic-level politics (Rose, 1998; Sterling-Folker, 1997, 2002; Taliaferro et al., 2009). It also arguably leaves more space for moral action, which has been an element of classical realism that differs from other realist strands (Donnelly 2000; Lebow, 2003). However, it is the internal structure of states that ultimately affect their behaviour and responses to threats. Schweller (2004) argues that cooperative action on climate change stems from the internal capabilities of states. For instance, a unified government and society would be better positioned towards external threats than fragmented ones (Schweller, 2004, pp. 159-160). Without a unified accord, states can continue the delayed action and harm the

environment by refusing to stop consuming carbon intensive resources (Heffron, 2015). Simply, neoclassical realism is a multilevel approach that accounts for the individual, domestic and systemic levels of analysis (He, 2017). The complexity of the lack of great power cooperation on CC is assumed to be a result of the barriers of the systemic level, and the inclusion of all levels can give a less precise analysis on the topic. This thesis does not see it as vital to analyse governmental and societal structures to examine the potential for great power cooperation, because the system-level has increasingly more implications for cooperation between the great powers.

The second body of literature covers offensive realism, a structural realist strand, and how it views cooperation. Offensive realism views the threat of CC as an opportunity for states to strengthen their capabilities and to assemble themselves to deal with the effects and changes of climate on their own (Kearn, 2018). Offensive realism assumes that states seek relative gains at the expense of others (Mearsheimer, 2009). Hence, offensive realists are skeptical towards international cooperation because one state would gain more than the other, despite cooperation being mutually beneficial (Grieco, 1988). Taking into account that the world consists of an infinite number of resources leads offensive realists to argue that states use as much cheap and carbon-intensive energy as possible to gain relative power (Eckersley, 2012). Therefore, according to offensive realism, great powers will seek to maximise their energy security at the expense of the environment, rather than cooperating with another power and sustain the planet (Eckersley, 2012, p. 164). Thus, offensive realism sees little room for cooperation, even on the issue of CC.

The third and last body of literature covers the second structural realist strand; defensive realism and their view on cooperation. The two strands of structural realism differ on how much power is needed. Kenneth Waltz (2000) argues that states do not aim to maximize their power, but rather aim to accumulate enough power to maintain security and ensure survival (p. 126). Defensive realism, thus, offers a perspective that urges states to take the threat of CC seriously and to try and mitigate it for the sake of security, instead of only seeking maximization of power. Defensive realists argue that if certain conditions are fulfilled, two states that are fundamentally different and have competitive means towards each other, can cooperate for mutual benefits (Taliaferro, 2000). These conditions are for example the mitigation of the security dilemma, and reducing the incentive to cheat for relative gains. Furthermore, as climate change is a transboundary issue, it prompts defensive-minded states to align themselves to collectively fight the threat. Realists are skeptical to interstate cooperation, however, defensive realists can view cooperation as the optimal

approach because of the threat to security posed by CC (Heffron, 2015). In the context of CC, a defensive realist can also view cooperation as a rational action taken out of self-interest. As such, defensive realism can open a window of opportunity for cooperation because of the threat to security CC poses, in contrast to the other realist strands (Laferriere & Stoett, p. 76). Defensive realists recognise the threat that CC poses to the state and can, under certain conditions, view interstate alignment and cooperation as an optimal solution to balance the threat. Hence, these conditions that can lead to cooperation on CC needs to be investigated.

Following the logic of the literature, CC poses an imminent threat to national and global security and should optimally be handled through great power cooperation because it is a transboundary and not a standalone issue. However, cooperative efforts on climate change have failed and been delayed too long. This is argued to be a result of universalist and ethical arguments that do not incentivize action from the most needed states, namely the great powers. Great powers and their behaviour are commonly understood through realist theories. Thus, the realist strands' views on cooperation have been reviewed. Great powers act out of self-interest to maintain or increase their power, and do not wish to bear the costs of other states. As observed in the literature review, defensive realists perceive CC as a threat that needs to be mitigated and do not see cooperative efforts as a last resort. Previous literature has denoted great power relations and its implications for CC, and it therefore exists a vacuum in understanding CC cooperation by applying the realist school of thought. This thesis, therefore, seeks to theorize great power cooperation on CC as an act to preserve security through defensive realism. The gap in the literature will be filled by posing the following question: How can great power cooperation on climate change be explained by defensive realism?

Theoretical Framework

Theoretical Scope

The theoretical foundation of this thesis is defensive realism, as argued from the logic of the literature review. Thus, defensive realism and its assumptions will be examined to analyse the opportunity for great power cooperation on CC.

The first assumption of defensive realism suggests that states are the main actors in world politics (Waltz, 1993). This study aims to analyse cooperation amongst the great powers which inherently are fundamental subjects to enact change (Bernstein, 2020). Second, the current structure of global politics is that of anarchy (Mearsheimer, 2010; Waltz,

1993; Zhang, 2021). This implicates that states operate without any supreme authority above them that can make them abide to laws or impose sanctions for not abiding to these laws. According to Waltz (1979), the anarchical system motivates states to preserve national security. Whilst great powers have supplementary interests such as increasement of military capabilities, security stands as the key national interest of a state through the lens of defensive realism. Threats to national security have most commonly been other states and rising powers, whilst CC is a threat that derives from nature (Sofer, 2015). Regardless, CC poses a threat to national security and survival to the same extent as an aggressive state. Strategic interests of states are economic growth, expansion of influence, and security, which all are linked to the issue of CC, and achievable through climate action (Baker & Schultz, 2020). Thus, in this thesis CC is seen as a threat to national security, and if dealt with, can result in opportunities and gains for the state.

Another assumption that lies as a bedrock for defensive realism is the security dilemma. The security dilemma arises as a consequence of actors' lack of mutual understanding of their intentions (Jervis, 1999). The security dilemma is essential to understand the behaviour of great powers. The dilemma in practice is, if one state increases its security, for example by building up its military for defensive reasons, another state can observe it as an aggressive act and answer with the same coin, and therefore results in both parts being increasingly insecure. The uncertainties surrounding great powers' intentions and actions often result in risky competition rather than cooperative efforts of mitigation. Liff and Ikenberry (2014), however, posit that the security dilemma is a situation where states have defensive intentions and prefer to avoid costly competition. The security dilemma is often argued to be an intractable feature of anarchy (Mearsheimer, 2009). However, this thesis will not see it as only leading to competition or conflict. Because state action to increase its security towards CC does not enhance the dilemma similarly to building up its military, and if intentions are transparent to the counterpart, the dilemma can be mitigated. This is because the security dilemma depends on the diagnosis of the situation, and that cooperation can be more attractive if the uncertainty of intentions is reduced (Jervis, 1999).

Furthermore, states are sceptical towards inter-state cooperation, even if cooperation is mutually beneficial, cooperation often fails because one state seeks to gain more than the other (Grieco, 1988). This assumption is the issue of relative gains, and creates a barrier for cooperation, as states are concerned that they can end up relatively weaker than their counterpart (Grieco, 1988). However, defensive realism argues that the relative gains problem does not create an insurmountable barrier to cooperation. States can cooperate if the

gains of cooperation are extensively large, and the state is met with an external security threat that cannot be dealt with alone (Waltz, 1959). Additionally, the relative gains problem can be overcome through repeated games, as reciprocity reduces the incentive to cheat for relative gains (Powell, 1991, p. 1305). As such, cooperation is feasible if it leads to equally large and absolute gains when facing a threat to security, and calculations for defection show that cheating is not sufficient (Waltz, 1959). This thesis assumes that anarchy pushes states to seek relative gains however, under certain conditions, it can pose less of an issue for cooperation.

Finally, under anarchy there exists a self-help system where states must rely on themselves to ensure their own security (Vahista & Jyalita, 2021). Thus, states act out of self-interest to secure their own survival. However, that is not to say that states always act rationally and pursue the most optimal strategies. A substantial part of international relations (IR) literature argues that states fail to choose rational policies (Esler, 1989; Miles, 1998). Therefore, the focus of this thesis is not to explain why cooperation is the most rational action and expect the behaviour of great powers to align with theory. However, a theory that prescribes strategies based on states' self-interests can enable an evaluation of the impact of the international system on a state's pursuit of achieving security (Glaser, 2010). Additionally, it may provide a baseline for analysing great power behaviour and their pursued policies. Hence, the aim of this thesis is to provide the foundations for a sound theory on great power cooperation on CC, a non-traditional security issue.

Conceptualisation

Cooperation

The core concept in this research will be cooperation. Thus, it is crucial to outline how cooperation is viewed and how it can be achieved. First, cooperation arises “when actors adjust their behaviour to the actual or anticipated preferences of others, through a process of policy coordination” (McGuire, 1997, p. 15). In the context of CC, cooperation is referred to as coordinated policies and agreements that are designed to avoid the disasters of delayed action. These cooperative efforts can range from research projects, coordinated reduction of emissions, to cooperative efforts to support the developing world in transitioning to cleaner energy. Multilateral processes have failed to enact cooperation on CC (Hale, Held & Young, 2013). Therefore, cooperation will be analysed through the interests and incentives for involvement of great powers and bilateral cooperation between the U.S. and China.

Additionally, this thesis will not view cooperation as a last resort, rather as a strategic action under certain conditions.

Great Powers

Further on, great powers will be conceptualized. Great powers have considerably more material capabilities relative to other states and are recognised internationally as a great power (Frost, 2003, p. 86). Traditionally, the power of great powers has been measured on military, economic, and technological capabilities (Brooks & Wohlforth, 2014, p. 16). In the context of CC, it is essential to also look at their ability to exert these capabilities, for instance, by evaluating their foreign influence, economic investments, or technological advancements (Brooks & Wohlforth, 2014).

However, the concept of power is complex and needs further clarity. In this thesis, the power of a state in world politics will be related to the extent to which a government can pursue its interests abroad and meet its ends (Zakaria, 1998, p. 9). The ability to exert its interests upon other actors in the international sphere is structural power (Barnett & Duvall, 2004, p. 3). However, the power to influence depends on the capabilities of the state. As such, the structure, scope, and capacities all shape a state's ability to influence decision-making and issues on the world stage (Zakaria, 1998, p. 9). In the current state of international affairs there are two competing great powers, China, and the U.S. These two states contain the most capabilities, power, and ability to exert influence abroad (Bernstein, 2020). Therefore, the world is largely dependent on how the U.S. and China manage their resources, assert their power, and the development of their relationship (Kotkin, 2018, p. 10).

Theoretical Expectation

This thesis will conduct an interpretivist approach and will not have a hypothesis that it seeks to verify. Rather, this research aims to investigate the conditions posed by defensive realism under which great powers can cooperate on the issue of CC. The theoretical expectation of this thesis is that defensive realism can uncover possibilities for great power cooperation. It is assumed that the CC poses such a threat to security, that the mutual gains of cooperating will be attractive to the U.S. and China. Hence, the assumptions that commonly is viewed as barriers can be surpassed. By looking at empirical records of failed and successful cooperation between great powers, it is assumed that defensive realism can prove insightful for how great powers can cooperate on CC.

Research Design

This research aims to explore great power cooperation on CC through defensive realism. To do so, an interpretive approach will be applied. The justification for the chosen approach is based on the article of Mearsheimer and Walt (2013), in which they argue that the increasing hypothesis-testing and exclusion of theory in academic literature results in a "gap between the ivory tower and the real world, making international relations scholarship less useful to policymakers" (p. 427). Because the world is complex, IR theory can create mental maps to identify what is essential in different domains of world politics and identify causal mechanisms that can explain behaviour and relationships (Mearsheimer & Walt, 2013, p. 430). Furthermore, the research is inductively seeking to fill the gap in the literature on CC and great powers from a realist perspective because it lacks theoretical groundwork.

To assess if defensive realism can provide a sound theory for great power cooperation on CC, this thesis will make use of IR literature and empirical records of previous great power cooperation. By drawing upon both successful and failed cooperative actions and linking it to the bed rock assumptions of defensive realism, the research aims to investigate under what conditions great powers can view it as optimal to pursue cooperation on CC.

There will be an explicit focus on the two current great powers, China and the U.S. This is justified on the grounds of slow progress being caused by a lack of involvement from the two great powers (Brenton, 2013). Without the involvement of the U.S. and China, progress will only be made in a piecemeal fashion (Brenton, 2013). Additionally, the U.S. and China have both been reluctant to act in multilateral processes and international agreements on CC after the shift in administration after Obama, and this research pegs the question to how cooperative efforts can be incentivized again (Falkner, 2005, pp. 587-588). Both China and the U.S. are investing heavily into the future and clean energy and inhabit immense capabilities to enact change both influentially and technologically. Cooperation amongst the two great powers will therefore result in a more rapid and needed transition, and spur improvement beyond borders (Eckersley, 2018; Falkner, 2016; Keohane & Victor, 2016). On the other hand, the two states have vastly different domestic affairs, system of governments and societies. Investigating cooperation between such different states will also provide useful insights for future cooperation amongst states that commonly operate competitively because of their dissimilarities.

Trying to create a sound theory, the thesis will base its research on the defensive realist theory because it is commonly used to explain the behaviour of great powers. It is less

constrained towards cooperation than other realist theories and weighs security higher than maximization of power and relative gains. Realist theories explain the realities of the world, emphasising the selfish nature of states and the absence of authority above them. Academia on CC has focused more on the normative aspects of why great powers ought to act. However, the essence of this thesis is to uncover when CC cooperation is a strategic action for the great powers. As such, the choice of a defensive realist approach is because of its explanatory power on the behaviour of great powers when facing a threat to security.

Analysis

To evaluate defensive realism's usefulness in providing a sound theory for CC cooperation, the analysis will be structured around the assumptions for cooperation of defensive realism. This will be pursued by looking at empirical records of bilateral attempts at cooperation on CC between the U.S. and China.

Early Efforts

Cooperation between great powers is uncommon, but far away from impossible. To investigate the conditions for great power cooperation, it is important to understand the system in which great powers operate and its implications for great power relations. The great powers operate in a system of anarchy, which has a causal force leading to competitive relationships (Waltz, 1993). The U.S. took leadership for extensive action in negotiations of CC treaties starting from the Rio Conference in 1992 until the Kyoto Protocol in 1997. (Betsill, 2000). However, due to a lack of domestic support based on the argument that the U.S. should not bear the costs of others and the disbelief of the climate science, their involvement in CC cooperation diminished (Betsill, 2000). Around the century shift, China was not the powerhouse that they are today and viewed themselves as a developing country that had less responsibilities to act for CC (Hu, 2009). However, as China rose as a both a power and a competitor on the international scene, Sino-U.S. relations increasingly became more competitive as power was transitioning. During the Obama Administration in 2013, the two powers initiated the U.S.-China CC Working Group (U.S. Department of State 2014). This establishment served to cooperate on common interests, such as energy efficiency in buildings and industries, as well as the sharing of greenhouse gas (GHG) data. Intentions were clear, and the cooperation on CC between the two states seemed to rely on mutual interests. However, China's rise and foreign involvement increased the tensions of

geopolitics and competition between the two powers. Cooperation on CC suffered as a result. Even though cooperation on battling CC had mutual benefits and several opportunities for both great powers, the two powers grew to be considerably suspicious of each other (Lieberthal & Sandalow, 2009). Lieberthal and Sandalow (2009) argue that the main obstacle for cooperation is mutual distrust. That pegs the question of how great power cooperation on CC can occur based on the premises of defensive realism.

Uncertainties of intentions & the security dilemma

The first assumption of defensive realism, namely, the security dilemma and the uncertainty of intentions, will be discussed. First, the uncertainty of intentions and its implications will be investigated. Cooperation on CC depends on mutual trust (Raihani & Aitken, 2011). Cooperation on CC has previously been a unifying issue on the bilateral relationship between the U.S. and China (Lewis, 2017). The Obama administration pursued a fierce bilateral agenda with the Chinese government which sought to increase cooperation on CC (Lewis, 2017). This led to the establishment of the Clean Power Plan in 2015. This plan laid the foundation for international climate targets, and the engagement of coordinated policies of key countries, such as China. A point that must be stressed is that the initiative came from the U.S. and their pledge to assert a domestic focus on climate policies. As the U.S. showed good intentions and the will to act, China responded on a similar note. Both great powers need to clarify their intentions by showing to their domestic policies towards CC, as it would increase transparency and reduce uncertainty. Additionally, the coordination of policies depends on frequent meetings between the two great powers (Victor, 2021). In that regard, Obama clearly fronted tight collaboration with Chinese authorities and Xi Jinping. Furthermore, fluid intentions and reciprocity are important factors in sustaining the established agreements over time to build trust and avoid defection (Bukovansky et al, 2012). That is why transactions and agreements in cooperation should be small and frequent rather than large and rare. This would counter the issue of uncertainty of intentions and enhance trust.

For an increase in cooperation on CC between the U.S. and China to be possible through a defensive realist perspective, uncertainty of intentions must be reduced. An example is China's growing influence in Africa. As a reaction, the G7 recently decided to spend six-hundred billion dollars in fighting back the influence of China on the African continent, creating more tensions in the U.S.-Sino relations (Lemire & Mathiesen, 2022). China and the U.S. are in a position where uncertainties are high. For instance, the two are

commonly dependent on coal as a cheap energy source and are aware of the effects it has on GHG emissions. Therefore, reducing the use of coal is a frequent topic of discussion between the two great powers. China has agreed with the U.S. in November 2021 to phase out coal domestically and to withhold any new constructions of coal power plants (Hsu, Nahm, Wang & Lewis, 2021). However, China has not spoken or showed any regard to their foreign investments in coal power plants or put forward a detailed time plan of when coal as an energy source will be irradiated (Plumer & Friedman, 2021). Furthermore, China, through its belt-road initiative, is increasingly investing in Africa, for instance in coal plants, with the aim to create close ties between the African continent and China (CAETR Report, 2021). This has resulted in uncertainties on the China's will to collaborate with the U.S. on clean energy and has disincentivized cooperation from an American standpoint (Liemer & Mathiesen, 2022). These investments are a good example of uncertainty of intentions causing disruption to any cooperative efforts between the two great powers. The possibility of cooperation depends on increasing transparency of intentions in order to gain mutual trust.

Further on, the security dilemma is inherently important to mitigate for cooperation on CC to be possible. An example of the security dilemma was the eighteen percent increase in military spending in March 2007 by the Chinese government (Chen & Feffer, 2009). The U.S. saw this as an aggressive act however, China responded that it was for national security reasons and that it was a defensive act. This pursued action of China to increase their security, enhances the security dilemma and reduces incentives for cooperation as the U.S. views the move from China as threatening. The issue of CC must be viewed as a stand-alone issue that does not interfere with other areas of interests, because of its immense threat to national and global security. Increased action on an interest that involves both powers enhance the security dilemma and reduces the likelihood for cooperation (Lake, 2018). The U.S. are also active on the frontier of China, creating Indo-Pacific partnerships where one the of main aims of the partnership is clean energy investments to fight CC (Overly, 2022). This is an example of the U.S. seeking to increase their security by strengthening their relationships in the Indi-Pacific region to deal with the threat of CC and other areas of interests. However, whilst the U.S. increases their security, China views it as an aggressive act as the U.S. operates with bordering states to China. Despite the intentions not being of aggressive or offensive means, it creates insecurity for China which enhances the security dilemma and makes cooperation less likely.

However, defensive realism sees the opportunity for the security dilemma to be mitigated. This can be possible through the enhancement of strategic trust and if cooperation

leads to mutual security for both powers (Liu & Yang, 2020). As an example, the Soviet Union (SU) and the U.S., during the Cold War, had a severely conflictual relationship and two completely different governments and societies, similarly to the situation of China and the U.S. today (Jervis, 1999). However, facing the threat of nuclear weapons and the awareness of the terrible consequences that could arise, the SU and the U.S. worked collaboratively on nuclear disarmament to achieve mutual security through strategic dialogue and arms control agreements (Jervis, 1999). Therefore, two defensively motivated states can overcome the security dilemma if their true intentions are recognized, and the two sides will gain mutual security from cooperation (Glaser, 1995).

Cooperation as self-help

Another important assumption of defensive realism is that anarchy induces states to engage in a self-help behaviour (Taliaferro, 2000, p. 136). Acting in a self-help system implicates that one cannot rely on anyone but themselves for their security. Therefore, states commonly do not act through cooperative efforts in a self-help system. Steve Weber (1990) argues that any cooperation that emerges under anarchy will “be tenuous, unstable and limited to issues of peripheral importance” (pp. 58-59). However, Jervis (1994) argues that if defensive realism is properly understood, it can predict that under a wide range of conditions states can most optimally achieve security through cooperation (p. 51). If the conditions of cooperative efforts prevail those of competition, cooperation would then be an act of self-help (Jervis, 1994, p. 53). In 2010, the U.S. Department of Defence declared CC as a key issue to shape the future security environment (U.S. Department of Defence, 2010). Later, in 2015, the U.S. Department of State (2015) assessed CC as a national and global security threat that should be dealt with cooperatively. Additionally, the Chinese government and Xi Jinping have also declared CC as a major threat to their national security (Lewis, 2007). Thus, CC meets the high threshold of a security threat for cooperation to be an action of self-help (Sofer, 2015). Furthermore, only a decade ago, cooperation between the U.S. and China largely set the direction for global efforts on CC and aimed to fight the threat of CC (Victor, 2015). In 2014, Barack Obama and Xi Jinping held a summit in Beijing where both parties pledged to act collaboratively (Victor, 2015). Conversely, the progress in international negotiations that led to the Paris Accords in 2015 only became possible because of the bilateral agreement between the U.S. and China in November 2014 (Eckersley, 2018; Falkner, 2016; Keohane &

Victor, 2016). Today, the picture looks different and tensions in the great power relationship have barricaded any further efforts to cooperate (Terhalle & Depledge, 2013).

Nevertheless, self-help to maintain security is still pursued. China is not only working on the most efficient coal technologies in the world, but they are also expecting to avert 640 million metric tons of CO₂ through non-fossil fuels such as hydropower and nuclear power (Seligshon, Heilmayr, Tan & Weischer, 2009). China is also the top producer of wind turbines, solar panels, and batteries (Baker & Schultz, 2020). As Kier Lieber (2000) argues, the immense technology of these two states serves their political interests, through the development of new capabilities to achieve the vital objective of increasing security (p. 20). However, the Trump administration reduced the investments in capabilities in battling CC and created turmoil in the relationship with China (Lewis, 2015). That is why the Biden Administration has sought to turn the ship around and seek cooperation and large green investments (The White House, 2014). Regardless, the geopolitical tensions today are vastly different from what they were during the Obama administration. An example of this was the recent Shangri-La meeting led by the two Ministers of Defense Lloyd Austin and Wei Fenghe. Wei Fenghe's bottom line for the opportunity to cooperate was for the U.S. to stop interfering with China's internal affairs and different areas of interests other than CC (Heer, 2022). China is willing to cooperate on CC, however, they demand that their strategic interests stay intact. For instance, the U.S. involvement in the Indo-Pacific region decreases the likelihood for any bilateral cooperation (Heer, 2022). For cooperation to be beneficial as self-help in the international system, the cooperation on CC should acknowledge the desires and interests of both great powers on equal grounds (Falkner, 2005; Young, 2011). Additionally, both states fear each other to defect as an act of self-help. However, cheating will be pursued only in cases where it would lead to an increase in security (Falkner, 2016, p. 79). Therefore, defection is only viable if the defensive realist conditions do not uphold for cooperation, such as cheating leading to further gains. If cooperation falls under the right conditions, it can then be an act of self-help when facing the threat of CC.

Relative vs. Absolute Gains

Finally, the issue of relative gains operates as a barrier to cooperation on CC. Anarchy discourages cooperation because it requires states to worry about the relative gains of cooperation (Glaser, 1999). China previously argued for common but differentiated responsibilities because of the argument of relative gains, that any unified action on CC

would be of relative loss for developing states and China (Sofer, 2015). China wanted to continue to benefit from their carbon-based economy, which resulted in reluctance to ratify the Paris agreement (Plumer & Friedman, 2021). Therefore, both China and the U.S. were reluctant to act because of the significant gap in effort, and fears of relative gains (Eckersley, 2020). However, relative gains are not all that matters. To assert that, is to declare world politics as a purely zero-sum game, and defensive realists do see possibilities for mutual security through cooperation (Glaser, 1999, p. 46). Defensive realists assume that states seek to maximise their security rather than their relative power. Thus, the extent of the threat CC poses can alter the previous calculations of the great powers. This is because within the security realm of CC, the issue of relative gains does not exceed the importance of mutual gains benefit (Glaser, 1999, p. 76). If cooperation on CC leads to an increase in security for the U.S., an increase in the security for China is not an issue for the U.S. It is rather desirable in the context of cooperation on CC, because a mutual security gain increases the satisfaction of cooperation for both parties. As such, security-seeking states are less concerned about relative gains, and more focused on acquiring the capabilities needed to battle the threat of CC to achieve security (Kearn, 2015, p. 16). Thus, defensive realism opens a window of opportunity for cooperation and the accumulation of absolute gains. Further on, it is argued that a bipolar system produces incentives and opportunities for great power cooperation (Miller, 1992). As China is increasingly becoming a greater power, the international system is not unipolar anymore, and the system either is or is becoming bipolar. Traditionally, cooperation on collective goods problems, such as CC, are more likely with a lower number of actors involved (Miller, 19992, p. 27). Additionally, Waltz (1964) suggests that two great powers in a bipolar system are less concerned with relative gains, and more focused on making absolute gains to ensure security. This argument relates to the situation faced in present time, with two great powers dealing with an external threat to security. As such, through a defensive realist perspective, the two great powers can seek absolute gains through cooperation, and disregard the issues of disproportionate efforts from developing states on CC.

However, as the multilateral COP26 agreement in November 2021 illustrated, the great powers will not act based on any other calculations of interest than for themselves. Therefore, relative gains might be a surmountable barrier in bilateral cooperation. However, in multilateral cooperation defensive realism assumes the great powers will not cooperate unless it brings relative gains. For instance, some states sought to make coal illegal during COP26, whilst both the U.S. and China did not ratify this decision (Plumer & Friedman,

2021). They did not ratify this because they would lose out on the agreement, as they are still dependent on coal for cheap energy. Additionally, institutions and international agreements are only attractive to them if the decisions are taken on their premise. Hence, world politics is still about relative gains and needs to be recognized in negotiations of CC and international institutions. Great powers only establish or follow international institutions when it serves their interests (Cui & Buzan, 2016). If a state is uncertain about relative gains, it would prefer a higher number of actors involved, as it can more easily attain relative gains in agreements with “weaker” states (Grieco, Powell & Snidal, p. 506). If one can understand the positionality of a state and the relative gains problem for cooperation, defensive realism can give an insight into when states seek security and mutual gains through cooperation (Grieco, Powell & Snidal, 1993). Additionally, if cooperation on CC leads to absolute gains that exceeds the issue of relative gains, and if the effects of not cooperating present an extensive external threat to national security, then cooperation can be deemed useful from a defensive realist perspective (Sofer, 2015). Defensive realism, thus, sees the opportunity for great powers to seek absolute gains in cooperation on CC to preserve their security against a threat.

Theorisation

Finally, do the findings insinuate that defensive realism can lead to cooperation being pursued on CC based on the conditions outlined? CC poses an immersive threat that goes beyond borders and is critical to deal with for the great powers to ensure national security. However, that is not to say that there exist barriers that prohibits cooperation. First, cooperation depends on increased transparency of actions and intentions, and the mitigation of the security dilemma through strategic dialogues and frequent and smaller transactions (Oye, 1986). Second, the threat of CC to national security and that it must be dealt across borders is recognized by both the U.S. and China (White House 2008; Lewis, 2009). Cooperation on the issue will be economically beneficial by leading the investments in green energy, and great power cooperation with its technological capabilities, will further the research and lower the mutual costs. A defensive realist will also value the insurance of security and survival higher than maximisation of power or relative gains, and therefore, is the strand of realism that views cooperation on CC as self-help in the anarchic system. Third, sustained cooperation needs to be more beneficial than defection, as both powers fear the other to defect in the search of relative gains. On the other hand, cooperation on CC does not need to lead to cooperation on other issues of interests. Rather, it is inherently argued that

satisfaction of cooperation on CC depends on non-interference of other strategic interests that the great powers have. Defensive realism has posed as a sound theory in trying to explain under what conditions great powers can cooperate on CC.

Conclusion

As per the analysis above, defensive realism allows for an explanation of the necessary conditions for great power cooperation on the issue of climate change. The assumptions that have been analysed are uncertainty of intentions and the security dilemma, the self-help system under anarchy, and lastly that states seek relative gains. All the assumptions above are usually argued to be barriers to cooperation, but this thesis has investigated solutions to these obstacles. This thesis argues first that the intentions of state actions on CC need to be transparent and that the security dilemma can be mitigated, contrary to realist beliefs such as offensive realism. Second, that cooperation on CC can be of self-help to ensure national security and survival. Third, that states can seek absolute gains when the gains are so large to an extent that it is not beneficial to defect from cooperation. As such, cooperation through the lens of defensive realism is possible under these conditions. That being said, this thesis is not able to evaluate the likelihood of great power cooperation on CC. However, it contributes to the understanding of great power behaviour and the foundations for great power cooperation to be plausible.

Despite this thesis contributing to the research of great power cooperation on CC, there are limitations to the research. For instance, governmental and social structures were not accounted for when analysing under what conditions great powers pursue cooperation or not. Furthermore, the analysis only revolved around the two great powers, the U.S. and China, and did not regard international institutions such as the EU, or small powers that presently cooperate on CC, such as Norway with their environmental investments in developing states.

The analysis also adopted a purely defensive realist approach. This limited the research by moving away from other theories that view cooperation as much more likely such as liberalism, institutionalism, and constructivism. However, the choice of one specific theory enabled a coherent and specific analysis.

Ultimately, investigating the conditions for great power cooperation on CC contributed to filling the gap of the realist school of thought on an important issue, and supported further research on great power cooperation. Nevertheless, the thesis does illustrate

that the condition for cooperation is far away from easily surmountable. Thus, it would prove insightful for future research to analyse how the issue of CC can be solved on a worldwide basis in which the relations between China and the U.S. intensify further and would purely be pursued through competitive means. On a final note, this thesis seeks to insist on further application of an interpretivist approach as it would greatly benefit the IR scholarship, and support the understanding of great powers in a changing world.

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