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Master thesis

Why the Sino-US technology relationship has changed?
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Abstract

Since the establishment of diplomatic relations between China and the US, the two states have maintained a good cooperative relationship in technology for most of the past 40 years. However, since Trump's presidency, the U.S. science and technology policy toward China has undergone tremendous changes. The US's foreign policy has changed from emphasizing cooperation in technology with China to emphasizing "decoupling" and "sanctions" in technology field. However, in the past, the cooperation in science and technology between China and the US brought huge benefits to the technology-related economic market and technological development of China and the United States. Based on this, the author poses a research question: Why has the technology relationship between China and the US has changed? In view of the controversy over whether Chinese technology actually harms the US's national security, the author chooses the ontology based on constructivism, using the theory of securitization and political rhetoric, to use the two presidents Trump and Biden's speeches about China or Chinese technology as research data to analyze and summarize the securitization path of Chinese technology in the US in the recent five years. The author discovered the path of securitization of Chinese technology in the US it originated from the securitization of China in economy sector during Trump's Presidency, then the technology issue in the two states' relations gradually became a prominent field in Trunmp's Presidency and become even more crucial during Biden's presidency, so that recently the securitization of Chinese technology in the US has been upgraded to the securitization in the whole Western world.

Key words: China, the United States, Foreign Policy, Technology, Securitization

1.Introduction

1.1 Background

This year marks the 50th anniversary of the publication of the Sino-US Shanghai Joint Communique. Under the guidance of the spirit of the "Shanghai Communique", Sino-US relations had started the normalization process, and a series of major progress has been made in cooperation in the science and technology. A long-term cooperation dialogue mechanism in technology has been established, and a series of satisfactory results have been obtained technological achievements. However, U.S.-China tech relations took a nosedive in 2018, with the Trump administration launching import and export sanctions and trade restrictions on Chinese tech companies, which were extended during Biden's presidency.

The normalization of Sino-US relations has also brought about the full development of Sino-US cooperation in technology. Although there were some twists and turns, the tech relations between the two states had shown an overall upward trend from 1972 to 2017. Under the foreshadowing of the gradual increase in restrictions on technology products exports to China in the second half of Obama's term, the Trump administration's technology policy toward China has changed from the main tone of cooperation in the past four decades to the main goal of technology "decoupling".

In July 2018, the United States imposed additional tariffs on Chinese imports, including high-tech products such as machinery and equipment, which are closely related to the national action plan of "Made in China 2025" (Zhou, 2019). In addition, the Trump administration used administrative means to suppress China's industries in emerging technologies such as artificial intelligence and drones. The Trump administration had also introduced the Clean Network policy, which it calls a "comprehensive approach to protecting the nation's assets, including citizens' privacy and companies' most sensitive information, from malicious actors such as China(U.S. Department of State, 2020)." The law is an attempt to separate China from U.S. networks by severely restricting the flow of network data through Chinese-made

telecommunications equipment and Chinese applications. The "Clean Network Plan" proposes that information passing through Chinese telecom companies such as Huawei and ZTE will be strictly restricted in the United States, and attempts to prohibit TikTok , WeChat and other applications from trading with American companies, and had used diplomatic means to prompt more than 30 Countries and regions to sign clauses with the United States to ban Huawei's 5G equipment.

During Biden's presidency, the technology relationship between China and the United States did not improve, and technology instead became a core field in the Biden administration's competition policy against China (Huang and Gao, 2022). The Biden administration has not yet formed a policy document with the theme of science and technology policy toward China, but its science and technology policy toward China is reflected in its major strategic documents and bills, and it has begun to take shape. During Biden's presidency, a series of measures have been implemented in accordance with the policy guidelines, and certain results have been achieved. Its content mainly includes promoting U.S. manufacturing by restricting the import of Chinese products, excluding China from key supply chains, and creating technology alliances to isolate Chinese technology development (Li, 2021). Its measures are mainly to strengthen the import and export control of Chinese enterprises, strengthen investment review of China, and restrict the exchange of scientific and technological personnel exchanges between China and the United States. It is expected that in the future, the Biden administration will put more emphasis on competing with China in the field of technology, especially the new edge technologies such as AI, biology and 5G (Cai, Chen and Ma, 2022) .

1.2 Problem formulation

Looking back, the cooperation in science and technology between China and the US before Trump's term experienced some ups and downs, but it had generally shown an upward trend and had brought huge benefits to both states. The US-China tech relation has experienced a huge setback during the Trump presidency. Although affecting national security and stealing intellectual property rights were the reasons

for the Trump administration to initiate policies of technology containment against China, these reasons have remained unproven. The CEOs of two major US tech companies, Apple and Google, have both stated in U.S. congressional hearings that there is no solid evidence that China is stealing intellectual property. On the other hand, although China's development in science and technology leads the world in very few fields such as some very specific fields in AI , China's overall scientific strength still cannot pose a threat to the United States. According to a strategic research report of Peking University, the United States will remain the world's No. 1 science and technology power for a long time, and China will keep following the US in most fields of science and technology (Research Group of the Institute of International Strategy of Peking University, 2022). In the GII 2019 report released by WIPO, China's national innovation capability ranks only 14th, behind South Korea, Israel and other countries, and far behind the United States, which ranks third (Cornell University et al, 2019).

It can be seen that there are three elements under the background of the US' initiative to curb China's scientific development: 1. The development level of China's science and technology still lags behind the US and cannot pose a huge threat to the US. 2. There is no sufficient evidence of Chinese technology's threat to US national security and intellectual property theft. 3. Both China and the US have produced huge benefits in the past scientific and technological cooperation. The author believes that the US does not seem to have sufficient reasons to carry out a technology containment policy against China. Therefore, the author proposes the following research question:

Why the Sino-US technology relationship has changed?

By answering this question, the author hopes to reveal the reasons behind the rise of technonationalism in major states today, also the reason of why the United States has started to contain China's technology development.

The author makes the following two explanations for the research question and its sub-questions: 1. "technology development" or "technology relations" are very broad issues. In the author's preliminary research, the author found that the US science and technology policy towards China is mainly focused on technology trade. Therefore,

the technology development of this thesis is mainly focuses on answering the containment of US technology trade with China. 2. Among the many official documents in the United States, it is not announced that the US technology policy towards China is a "containment policy". In the official documents of the United States, the sanctions against Chinese technology companies are mainly for the reason of "protecting the national security of the United States", which is one of the important reasons why the author chooses the securitization theory as the lens of analysis.

2.Methodology

In order to answer the research questions, the author will use constructivist theory and securitization theory, adopt discourse analysis, qualitative text analysis and case analysis, Combined with the US government documents related to China and technology, relevant US bills and the US Congress debate records to conduct empirical research to study why the US launched the technology containment policy towards China.

2.1 Choice of theory

Constructivism

The author will choose Windt's constructivism theory for the analysis of the research question. The core idea of Windt's constructivism theory is the influence of the distribution of common knowledge or ideas in the international system on the units—which are states. At the level of state behavior, the constructivist view is that state behavior is determined by state identity and interests, so the premise of understanding and explaining state behavior is to determine state identity and interests. Although material structure do exist, it can only have meaning through ideas (Qin, 2016, p, 164). International interaction forms a conceptual structure, which in turn affects the identity and interests of the state and then influences the behavior of the state.

Conceptual factors have always played an important role in science relations between states. For example, after the Chinese student strike in 1989, the change in the concept of China in the US once interrupted Sino-US cooperation in science (Chen and Liu, 2016). Compared with China, the technology development of European countries has not caused hostile behavior of the US due to the transatlantic consensus. The cooperation in science between China and the US was based on the US's perception of China, that was China's national behavior could be changed by engagement. Therefore, the US's perception of Sino-US cooperation in Science was favorable, and its perception of China's scientific strength was amicable. Since the

2018 US National Strategic Security Report was released, the US described China as a revisionist state and listed China as one of the three major challenges of the US, its concept of China has changed significantly.

It needs to be explained that the author will only use the core ideas of constructivism and avoid using the methodology of it, which is to explore the influence of international culture structure on system units. Since the US was the initiator of scientific and technological containment policy against China, and the cultural distribution of the international system did not change much at that time, even if there was, the United States was the main initiator of cultural changes in the system. Therefore, the author believes that it is difficult to explore the reasons for the US's technology containment against China at the level of the international system. Thus, the author will combine the core concepts of constructivism theory and the methodology of securitization theory and rhetorical political theory —that is, the "speech-behavior" of language constructivism and the rhetorical political analysis as the analytical tools, and focus on studying the process of China's technology's securitization process in the US.

Securitization

The author chooses the securitization theory which belongs to the constructivism paradigm to analyze the research question. As mentioned in the introduction, the question of this thesis is raised mainly from the author's observation that the US response to Sino-US cooperation in science has undergone major changes. In this thesis, the author attempts to elucidate changes in US technological perceptions, discourses, and actions toward Chinese technology through the lens of securitization theory. Securitization theory can well explain the US policy toward China's technology companies, and it can also help the author and the public realize that sanctions on Chinese technology companies in the US, a highly market-oriented state, are special measures. School of securitization argues that securitizing actors can restrict investment and business transactions by foreign companies in an ostensibly free market economy. If a foreign technology company is successfully constructed as a security threat, it can be sanctioned and the sanction can be legalized.

Another important reason why the author chooses securitization theory is that most Chinese technology companies that are sanctioned by the US——such as TikTok——has nothing to do with military which is what traditional security theory studies. Also, the US government frequently attempts to prevent China's technology companies from its market in the US on the grounds without factual evidence. As the securitization theory breaks the agenda boundary between low-level politics and high-level politics, brings non-traditional security issues into the analysis category through the securitization path, and expands the agenda of securitization research (Taureck, 2006), it can help the author incorporate non-traditional security topics into a security research topic.

As mentioned before, in choosing the theory of securitization as the theory, the author adopts some constructivist assumptions. The author views security and the perception of threat as inherently subjective phenomena that are based on a shared understanding of groups within a state rather than purely material conditions. After all, these material conditions are always mediated by explanations and influenced by discourses that identify threats and justify; therefore, the same material conditions can lead to different explanations and different responses in different people or states. The author also views that explanations and shared understandings evolve over time, and this evolution can be shaped and changed by individual actors, especially securitizing actors. According to the author's understanding of the theory, securitization theory is a tool for tracking how certain issues are perceived as threats to security, investigating the role of discourse behavior in this process, analyzing the political implications of such issues, and reinterpreting the process of the United States' introduction of China's technology companies-related policies. In narrating and deconstructing security discourses, securitization theory can challenge the legitimacy of those in power and their alleged irregular policy moves, which is a key form of accountability.

The author's analysis will focus primarily on researching securitization initiatives, as well as the consequences of securitization. Securitization theory covers the entire process from securitization behavior to audience acceptance, and the eventual outcome of securitization in the form of unusual policy measures. In securitization

theory, the acceptance of the audience forms the key link of security, however, the author limits the extent to which securitizing behaviors (where speech-acts occur) influence public discourse (i.e., audience's perceptions and the legitimacy of securitizing narratives contained in speech-acts). The author argues that a causal analysis of the occurrence and consequences of securitization is better than an overly broad study of the entire process.

Discourse institutionalism

Discourse institutionalism proposes a reconstruction of the "idea-practice" relations, which makes up for the insufficiency of securitization theory. Securitization theory is criticized to focus only on actors' identification and construction of existential threats for the purpose of simplify a theoretical framework, resulting in a weak explanation for the evolutionary logic of security policy (Yue, 2021, p.13). Researchers should pay attention to how the actors link their own securitization interests with potential security issues, and then construct the securitization narrative logic of how the "other" threatens the "self", and how to arouse the audience's resonance by manipulating the discourse to win their opinion and support for the securitization process (Ibid, p.14). Discourse institutionalism, on the other hand, explores how actors generate and legitimize ideas, and focuses on how ideas are presented through discourse, and how actors achieve policy continuation or change through discourse (Li et al, 2015). Therefore, the author chooses political rhetorical analysis of discourse institutionalism as the method to make up for the shortcomings of securitization theory in the causal explanation of how verbal and policy outcomes connect.

2.2 Choice of Data

The author's analysis in this article will focus on the changing perception of China in the US and the process of securitization of China's technology companies. The author's preliminary research shows that the securitization review of China's technology companies in the US has been controversial over the past few years and has changed in 2020 and 2022. By tracking the development of the securitization of

China's technology companies in the United States, the author do not attempt to provide a general explanation for whether China's technology companies have become a security issue in the US. Rather than seeking generality, the author wants to illustrate how China's technology companies' securitization process has occurred in the specific context of a change in the US's perceptions of China, in order to improve understanding of this situation in a similar context and potentially serve as a guide for a reflections on the process of Chinese technology companies' securitization in other countries.

The range of content that can be analyzed in the securitization process is quite broad, including the official political sphere (parliament, party congresses), political consultation (the work of think tanks and other institutions that provide information to political actors), and the media. Since the entire spectrum cannot be considered in discourse analysis, the author must make choices about which securitization actors to focus on. The author chooses US presidents because they undoubtedly meet the core criteria of being a security actor: in a position of authority, and they also have power to influence threat perception and security discourse (Buzan, Waever and Wilde, 1998, p.33). However, the author do not claim that US presidents are the only, or even major, actors capable of carrying out securitization actions, and the author acknowledges that the lack of consideration of other securitizing actors is a limitation of the study.

The time frame selected by the author for the data will cover the terms of President Trump and Biden, that is, January 20, 2017 to the present. The reason why the author chooses this time period is that the changes in Sino-US technology relations began during Trump's term, and President Trump had a profound impact on a series of policies introduced by China's technology, and received support during the Biden administration. According to the author's preliminary research, the technology sector is one of the focal points of the Biden administration, and its importance has even increased compared to the Trump administration. The author argues that Chinese technology has experienced different degrees and different ways of securitization during both the Trump and Biden presidency. Data covering the two presidency will

help the author gain a clearer picture of the process of securitization of Chinese tech in the United States.

In terms of data sources, the author mainly chose The American Presidency Project founded by the University of California. This website is a non-profit organization whose data sources include nearly every document in the Presidential Documents Collection, and is continuously updated based on the White House Media Office, the Government Printing Office, and the National Archives Materials provided by the Museum. These include the text of presidential documents such as statements and comments; press conferences; statements; executive orders; memoranda; and proclamations. This organization's purpose is to promote high-quality media and scholarly analysis by providing information, and it has been cited as a database by a large number of scholars. The author believes that the database has been tested by the academic, and its focus on presidential documents also fits the author's research objects——the two presidents Trump and Biden. On the basis of this database, the author will also conduct analysis through other secondary data in media and academic papers.

In the further screening of corpus sources in The American Presidency Project, the author will use "China", "Science" and "Technology" as key words in the searching filter and includes any types of documents such as speech, fact sheet, act, etc. In addition, due to the intertwined relationship between the U.S. science and technology policy toward China and its economic policy toward China, the author will also screen the overall policy toward China, economic policy toward China, and other content based on their relevance to science and technology policy toward China. The author believes that many securitizing speeches about "China" or "China's economy" are also securitizing "Chinese technology companies". For example, speeches that attacks China's authoritarian government on the grounds of human rights violations will facilitate sanctions related to Chinese technology company in Xinjiang.

2.3 Choice of method

The author will chose rhetorical political analysis as the specific research method of this thesis. Discourse analysis is a research paradigm that focuses on identifying discourses and establishing their interpretations and meanings of social phenomena. The author adopts policy discourse analysis as the research method, because both foreign policy analysis and discourse studies are important areas of application of securitization theory (Freier, 2006, p.6). Securitization theory believes that the identification of threats to things among actors is the core variable for evaluating security value and risk. Therefore, securitization theory chooses to conduct a comprehensive textual interpretation of actors' security behaviors in the form of discourse analysis (Yue, 2021, p .7). The choice of discourse analysis is also based on the author's ontological and epistemological assumptions, as well as the author's core concept of constructivism for analysis: real material has practical meaning only when it is endowed with meaning. The author argues that the world is socially or discursively constructed, and that the content of this social construction is decisive for how individuals and societies perceive, interpret, evaluate, and act. These assumptions are the basis for the author's view of speech-acts in securitization as an important research content, and the reason for the author's qualitative and interpretive research methods.

Rhetorical political analysis stems from critical discourse analysis. This model is one of the most widely accepted theoretical analysis frameworks in academic (Turnbull, 2018, p.209-225). Political rhetoric analysis advocates that the policy discourse analysis should not pay too much attention to the micro-discourse at the lexical, sentence and discourse levels, but to grasp the intention, strategy and influence of the policy-makers' discourse behavior in policy activities as a whole.

Combining the basic viewpoints of securitization theory in foreign policy analysis, political rhetoric theory further defines the policy making process as a coherent discourse process dominated by decision makers and divided into four stages: scenario construction, interest mobilization, identity shaping or accountability presumption, and action planning. (Yue, 2019: p. 21).

When analyzing the data, the author will preliminarily select the sentences in the

corpus screened by keywords "China"and "technology" according to the security theory and the principles of discourse analysis. Then, according to Yue Songshen's analytical framework, the author will classify Securitizing Speech according to "secnerio construction", "interest mobilization", "identity shaping", "action planning" (the specific classification principles will be explained in the theory section). In the conclusion section, the author will compare and analyze the two presidents' different securitization paths of China's science and technology, so as to draw the overall path of the securitization of Chinese science and technology in the United States since 2017.

2.4 Limitation

Securitization theory believes that the construction of security policy is a dynamic evolution, and rhetorical policy analysis is conducive to the dynamic display of a complete policy process. However, it can only provide a sliced display of a complete policy discourse, and cannot show the whole picture of this complex process. Due to the limitations of this theory, and the complexity of the process of securitization in the United States on the grand issue of Chinese technology, this paper does not show all of the progress of securitization of China's technology.

English is the author's second language, and the author's English level is far from native, but most of the analysis data in this paper are English corpus. Due to the limited language level, the author may have biased understanding of the corpus data, which may lead to errors in the results produced during discourse analysis.

Neither the Trump administration nor the Biden administration has specifically articulated a part of their domestic or foreign policy as "technology policy." In addition, the academic circles lack a clear conceptual definition and specific research results for both "science and technology policy" and "science and technology relations". Therefore, the research of this paper will not only include the content related to "science and technology", but also include the content of economy, diplomacy and other aspects. One of the limitations of this thesis is that "Sino-U.S. science and technology relations" are not clearly separated from "Sino-U.S. relations".

Whether in securitization theory or discourse institutionalism theory, the analysis of the acceptance of speech audiences is very important. However, due to the limitation of pages and research experience, as well as the nearly infinite number of existing speech audiences, the author chooses to use policy results to judge speech audiences' acceptance of securitizing speech.

3.Theory

3.1 Constructivsm

On security issues, constructivists emphasize the impact of social construction on state behavior and international relations. Because international relations are socially constructed, the structure of the international system is not only about the allocation of material resources, but also about social interactions. All of these shape the identities and interests of international actors, and identities and interests determine their behavior. Alexander Windt believes that the structure of international society has three elements: shared ideas, material resources and practices. "Amicable" or "hostility" plays an important role in international relations as part of a shared concept. Unlike realists or liberals, who believe that the distribution of material power or international institutions determine the interaction patterns of states, constructivists believe that interaction patterns are determined by the distribution of ideas. When two states see each other as enemies, they tend to be suspicious of each other. When two countries have friendly relations, they tend to be cooperative. Constructivists do not deny the influence of material factors, but argue that it is of limited importance to the international structure, and that material factors can only have a meaningful impact on actors through social construction.For example, TikTok and Twitter are both popular social medias, but only TikTok is considered a major threat by the US.

Constructivist theory pays attention to the role of ideas at the micro level, which is consistent with securitization theory and discourse institutionlism theory. "Common ideas arise from the agents' private ideas, that is, ideas held independently by the actors prior to their mutual time activity. The interaction of private ideas will form a shared idea, and once a shared idea is formed, it cannot be restored to a private idea(Qin, 2016)."

Based on the ontology of constructvism, the author will not analysis whether China's technology is or isn't a existing threat to China, instead the author will focus on what are the two presidents' views on the issue.

3.2 Discourse institutionalism

Discourse institutionalism is an emerging school of neo-institutionalism in international relations theory. In its view, the essence of policy is a discourse group that is shaped by decision-making actors to construct a specific system and can fully reflect their conceptual system (Majone, 1989, p.2). Politicians' ideas cannot be directly observed, so policy research can only be done through the trajectory of ideas—that is, language (Richards, 1935, p.5). Like securitization theory, discursive institutionalism holds that discursive interaction among policy actors is the fundamental way for a particular policy to gain legitimacy (Yue, 2021, p.16). Discourse institutionalists also believe that researchers can truly understand the origin of policy issues and people's demands only by studying semantics and the meaning behind them. Discourse institutionalism defines policy discourse as institutionalized structures of meaning that direct political thought and political action frameworks in specific directions.

In general, discourse institutionalism views policy construction as a top-down interactive process of discourse—policy elites generate ideas and communicate them to the public, and continue to adjust based on public feedback until a consensus is reached (Yue, 2019, p.40). Discourse institutionalism can also explore how individual thinking transforms collective action in the process of policy formulation at the epistemological level, providing a new perspective for policy research (Ibid).

Political rhetorical theory is an emerging school under the paradigm of discourse institutionalism (Yue, 2021, p.18). Policy analysis from the perspective of political rhetoric not only explores how ideas are presented through discourse, but also focuses on how actors achieve policy continuation or change through discourse interaction (Li, Yin and He, 2015, p.55). Based on this, the foreign policy process is defined as a discourse cycle dominated by decision makers and including four stages of scenario construction, interest mobilization, identity construction, and action planning. In the stage of scenario construction, decision makers will propose the boundaries and standards of the problem, and combine subjective cognition to screen and frame the

situation and identify specific threats (Jost, 2017, pp.167-208). During the interest mobilization phase, policymakers will identify threats to specific issues based on the established situation and incorporate the interests of policy audiences as much as possible (Nowlin, 2016, p.51-62). After that, in the identity construction and accountability presumption stage, decision makers will answer the audience's concerns and try to resonate with the audience through the identity construction of themselves and the source of the threat (D`Angelo, 2010).

Through the four stages of the construction of policy discourse by political rhetoric theory, the author will be able to understand the dynamic evolution of US science and technology policy toward China through the words of the two presidents, Trump and Biden, and political rhetoric theory is capable of making up for the insufficient description of the causal relationship between rhetoric and policy outcomes in securitization theory. The author will analyze the securitization process of Chinese science and technology in the United States through the four rhetorical stages of foreign policy formulation by political rhetorical theory.

3.3 Securitization theory

The Copenhagen School is the most prominent school in the field of security research in recent years (Zhu, 2003). The Copenhagen School follows the paradigm of constructivism, emphasizing the expansion of the definition of security concepts, highlighting the social construction process of security issues, and emphasizing the interaction between security actors.

Copenhagen School scholars believe that security issues should be adapted to different types of security analysis. Different from traditional definitions of security for military conflict or the possibility of the use of force, Copenhagen School emphasized that security depends on the perception of threats by political subjects (Lup, 1999). Barry Buzan believes that security is an act of taking politics beyond the established rules of the game and defining the issue as a particular kind of politics or above politics. A problem is a security problem, not because it is an existential threat, but because it is seen as a security problem (Buzan et al, 1998, p.23).

The Copenhagen School's definition of security exhibits its constructivist ontology in framing the security problem. On the other hand, the Copenhagen School also believes that security is about survival, which is manifested as an existential threat to a designated object (usually a state or government) (Ibid, p.21).

Speech-act is a linguistic constructivist tool of analysis adopted by the Copenhagen School. As mentioned earlier, Buzan defines "security" as "action" and that any public issue can be "securitized", meaning that the issue demonstrate real existence that requires urgent action and justifies actions beyond the scope of normal political process (Ibid, p. 24). A "securitization initiative" is a discourse that presents something as a threat to a target audience, but it cannot securitize by itself (Ibid, p.25). When the "securing act" is completed and accepted by the audience, the "securing act" becomes "securitization" (Ibid).

According to Buzan et al., the process of securitization is called speech-act in linguistic, the words themselves are the acts. As soon as the words are spoken, the thing is done. (Ibid, p. 26) On the definition of securitizing act, the Copenhagen School argues, that a securitizing speech act is not defined by uttering the word 'security', but by breaking the normal rules and presenting a 'threat' that requires special measures. Significant audience's perception of the idea cannot be ignored (Ibid, p. 27). Furthermore, the word "security" can be used in a metaphorical form, referring to the issue of safety. For example, when a speech says "defense" or "protect", the implied meaning of that speech also includes "security" (Ibid).

The Copenhagen School believes that a successful security speech behavior, the process of "securitization", requires both internal and external conditions. According to Buzan's theory, successful speech acts fall into two categories:

(1) Inner category - are the rules for following behavior (or, as Austin said, there must be generally accepted procedures and behavior must be performed in accordance with these procedures)... (2) Outer categories have two main conditions: one is securizing actors have an authoritative social status. Another external condition has to do with threats. Securitizing objects must have the potential to pose a security threat, such as tanks, hostility, or contaminated water. In the internal category, the most

important factor is to follow a securitizing form and grammar, to construct a "plot" containing the so-called "threat", to present a point of no return or a possible way out (Ibid, p.32).

Accordingly, securitization theory will act on the identification of securitizing discourse in the analysis part of this thesis. The initial data of this paper will be various materials covering words or sentences about "China" and "Science and Technology". The author will extract relevant sentences or meaning for analysis according to the definition of the concept of securitzing speech in security theory.

The author understands the concept of "securitizing act" as the "words" of "securitizing actors", while "speech-act" is "the process of securitization", that is, "the process by which the target audience receives a series of statements". As described in the methodology section, the author selected relevant speeches or records of US Presidents as the data for analysis, and the audience was considered to be the U.S. public. Therefore, the author will answer the research question by examining "the process of China's technology's securitization in the US: a process that implies the American public accepting a series of statements from government officials and lawmakers who see China's technology as an existential threat." However, the author found securitization theory's definition of "audience" is vague. Given the countless number of potential audiences in the US, the author is unable to analyze the acceptance of all audiences, but instead assess the outcome of securitization through government decisions. The author views that if the US's technology towards China does not arise public opposition, it means that the audience, the public, has accepted the securitization initiative.

3.4 Analytical framework - combination of securitization and discourse institutionlism

Specific to the analytical framework of this thesis, the author will combine the securitization and political rhetoric analysis to analyze the process of securitization of Chinese technology companies in the United States. Political rhetoric theory defines the policy making process as a discourse process dominated by decision makers,

which is divided into four stages: scenario construction, interest mobilization, responsibility presumption and action planning (Yue, 2019). The author will analyze securitization discourse according to this analytical framework to verify whether Chinese tech companies experience a full securitization discourse behavior in the United States.

In the stage of scenario construction, policy makers first put forward the state's overall security concept to clearly distinguish between security and non-security situations and explain the boundaries, basis and standards of security issues. On the basis of comprehensive consideration of various factors, decision makers screen and frame situations in combination with subjective cognitive background, and incorporate specific issues into the security policy framework for threat identification. In the scenario construction stage of this case, in order to attract attention in a short period of time, stimulate the awareness of the seriousness of the situation, and facilitate the introduction of a specific situation into the political agenda, policymakers usually use a variety of political rhetoric to exaggerate the threat, even at the expense of authenticity. A successful policy scenario does not have to be true , but must be self-consistent, or even full of lies with the aim of gaining more power (Schmidt, 2015).

Once the scenario construction is complete, policymakers are able to include specific threats on the agenda of policy discussions. In order to make their views more persuasive and competitive, policymakers will adopt discourses to "package" the urgency of threats from the perspective of interest analysis and carry out interest mobilization: according to the established security concept, explain in detail the possible infringement of interests and their forms, incorporate the interests of policy audiences as much as possible, and form a "community of interests" (Nowlin, 2016: p.51-62) , to deepen the audience's critical feelings and negative perceptions of threats .

After that, policymakers will initiate accountability presumption, trace the source of the crisis with the "otherization" of specific objects as the core method, and answer audience's concerns such as "who is responsible for the current situation". Based on

the identity setting of the "self and other" binary opposition, decision-makers promote the dual-line narrative of positive and negative comparisons. On the one hand, they highlight the infringement of others on their own interests, and on the other hand, they construct a "victim discourse" to highlight their own losses. Through this way, policymakers can arouse audiences' sympathy, lead them to realize the need for extraordinary measures, and lay the foundation for legal authorization (D'Angelo, 2010). : p.31-47). Policymakers then propose action plans to form a complete policy framework.

The author believes that this analytical framework makes up for the insufficiency of securitization theory in analyzing this research question: that is, although securitization satisfies the requirements of the dissertation for the diffusion of security concepts in non-traditional security issues, the securitization theory is insufficient to explain the causality between securitization act and securitization results. By combining the theory of securitization with political rhetoric, the author will be more able to find connections through the securitizing speeches at different stages, and be able to find the causal relationship with the final result of securitization—that is, the introduction of a series of policies against Chinese technology companies.

4. Analysis

The rapid development of China's science and technology has gradually deepened the reconsideration of United States on its relationship with China in science and technology. Maintaining the security of the United States' core interests in exchanges with China is the starting point and priority of the US government in formulating its China policy. In this context, the securitization and desecuritization of Chinese technology had been repeatedly implemented as the main discourse strategy for the construction of U.S.'s China policies.

It is worth mentioning that the US government has never issued an official document on "science and technology policy". The author believes that the U.S. government's science and technology policy toward China is inseparable from its economic and other policies toward China, because restricting Chinese technology companies' transactions in the U.S. market through economic means is the main method adopted by president Trump and president Biden—that is, entity lists, sanctions, etc. In addition, although many scholars have made relevant definitions of science and technology policy or relations, the author believes that there is no unified consensus in the academic on the meaning of science and technology policy, and the content of science and technology policy is very extensive. Therefore, the author will conduct research on the technology-related content of various documents or records by President Trump and Biden, such as economic policy, immigration policy, security policy, etc.

4.1 The securitization of Chinese technology in Trump presidency

At Trump presidency, the United States government embarked on a comprehensive escalation of China's securitization. Originating from the emphasis on economic security, President Trump's securitization of China has gradually extended to the field of science and technology, and has triggered a series of Sino-US technology disputes.

4.1.1 Scenario construction："Economic security"is"National Security"

When President Trump took office, China-U.S. science and technology relations still maintained a sound cooperative situation. The situation at that time was that the Sino-US scientific and technological personnel interacted frequently, so was the the trade in technology between China and the US. China's science and technology strength and economic aggregate have grown rapidly.

The focus of President Trump's scenario construction at this time was not in the field of science and technology, but in view of the huge trade gap between China and the United States, pointing out the decline of US leadership in the global trading system. In President Trump's view, the United States was facing the only economic urgency it has ever faced due to the failed economic policies of the previous administration (Kranish and Fisher, 2016: p.1-20) and China's unfair compete. As he said on 22 June, 2016 at Trump SoHo: "Our trade deficit with China soared 40% during Hillary Clinton's time as Secretary of State -- a disgraceful performance for which she should not be congratulated, but rather scorned (Trump, 2016)."Based on this understanding, President Trump put forward the slogan of reshaping the US economy, which is also the core of his campaign slogan "make America great again" (Edwards, 2018).

At the same time, President Trump also began to change the previous administration's attitude towards China policy and began to construct scenarios that are conducive to its policy approach. During this period, technology has not yet become an important key area in Sino-US relations. Trump started to attack China from the trade relationship between the two countries, saying that the real economy of the United States is undergoing an unprecedented decline - factories are shutting down and workers are losing their jobs (Trump, 2017). By saying such words, President Trump constructed a situation that the US economy was weakening, the employment rate was going down, and implied that China should be hold accountable for this situation.

On this basis, President Trump started to directly link the economy with national security, and put forward the security concept of "economic security is national

security". In the 2017 U.S. National Security Strategy report, ensuring U.S. economic security was listed as a core objective (The White House, 2017). In remarks on the 2017 National Security Strategy, President Trump stated that "for the first time, American strategy recognizes that economic security is national security. Economic vitality, growth, and prosperity at home is absolutely necessary for American power and influence abroad. Any nation that trades away its prosperity for security will end up losing both (Trump, 2017)." On this basis, Trump proposed "America First" as the guiding principle for foreign cooperation. Trump believes that the U.S. helped China to achieve industrial revitalization in the past, but it led to the lagging of U.S. industrial development. For the U.S., safeguarding its own interests is always the first priority (Trump, 2017). Based on this, "America First" has gradually been derived into the field of science and technology policy toward China , the situation of cooperation in science and technology between the two states began to be changed.

4.1.2 Mobilization of Interests: From "Economic Security" to "Technology Security"

By manipulating economic issues to security issue, the Trump administration's mobilization of interests in foreign policy toward China is carried out under the themes of "the imbalance of China-U.S. economic and trade " and "damage of U.S. interests".

President Trump believes that the biggest problem in the current Sino-US relationship lies in the inequality of bilateral trade - the US has a trade deficit of more than 300 billion US dollars with China every year, and China has "taken" the US market and jobs. As Trump said in Pennsylvania, "Your state has lost one-third of your manufacturing jobs since NAFTA, and one-fourth of your manufacturing jobs since China joined the World Trade Organization(Trump, 2016)." and "We've lost 60,000 factories since China joined the World Trade Organization in 2001(Trump, 2017)." By saying words like this, President Trump drew the picture of factories closed and and behind which is the reality of countless unemployment and the overall decline of the manufacturing industry, and China is the reason of that. According to

his logic of national security-economy security is national security, China is also a great danger to the security of the US.

President Trump's interest mobilization did not stop at the economy, but continued to expand the content and themes, and the discourse on the security of Sino-US trade began to advance to many fields, including the field of science and technology. He claimed that China violated the WTO agreement, failed to comply with the relevant obligations of member states, imposed multiple restrictions on imports from the United States, and forced American companies to transfer technology to China in exchange for China's market access, and even directly stole American's intellectual property rights. For example, President Trump once said in a speech that "the theft of intellectual property by foreign countries costs our Nation millions of jobs and billions and billions of dollars each and every year (Trump, 2017)", then he brought it back to China: " ……I'm directing the United States Trade Representative to examine China's policies, practices, and actions with regard to the forced transfers of American technology and the theft of American intellectual property (Ibid) ." Then, President Trump included technology into the security topic and the American workers and companies into the interest group by saying "……it's my duty and responsibility to protect the American workers, technology, and industry from unfair and abusive actions (Ibid)." China helps its domestic companies gain an advantage over the United States in related fields around the world through "illegal subsidies", causing a serious blow to the exports of American companies (Trump, 2017).

The way President Trump advanced the securitization of China from the field of economy to technology is to firstly claim that Chinese technology companies steal intellectual property and harm the interests of American companies, such as China's use of foreign ownership restrictions, including joint venture requirements, equity restrictions and other investment restrictions that require or put pressure on U.S. companies to transfer technology intellectual property to Chinese entities. He believes that China also uses administrative review and licensing processes to require or pressure technology transfers, undermining the value of U.S. investment and

technology, and undermining the global competitiveness of U.S. companies (Trump, 2018). Then President Trump claimed that after China has obtained cutting-edge technology and intellectual property rights, they will be used in scientific and technological activities that will directly damage the United States. For example, it was claimed by president Trump that the Chinese government is transferring cutting-edge U.S. intellectual property to the military sector of military industry and defense (Trump, 2017). By linking the non-traditional security of the economy with traditional security, President Trump may be able to deepen the audience's threat perception of Chinese technology companies.

It can be seen that while President Trump continued to express his negative perception of China by emphasizing its stealing of intellectual property, Chinese technology has also been included in the discourse framework of interests mobilization. Through rhetorical method, President Trump has linked the identified threat of "Chinese technology" to the community of interests——the US technology companies and their employee's employment status, and has established an obvious causal logic, that is, China's unfair competition has led to damage to the intellectual property of US tech companies and a rise in US unemployment. In addition, since the economic situation of the United States has been directly linked to the national security of the United States, Chinese technology companies have been considered to directly damage the national security of the United States.

4.1.3 Accountability presumption:"A Danger to U.S. National Security"

In the identity-building stage, President Trump further traced the source of the crisis with the "otherization" as the core of Chinese technology. By descriptions of specific "stories" of Chinese companies endangered the US's national security, president Trump made an "accountability presumption" of a series of specific Chinese technology companies and responded to the American people's concerns about manufacturing jobs, intellectual property theft, and cybersecurity.

In the process of holding Chinese tech companies to account, President Trump answered the question of "who is responsible for the current situation", such as in his

description of "Made in China 2025", Trump claimed that the "Made in China 2025" aimed to have important applications of China's military defense, and China used a variety of method to acquire U.S. intellectual property, including: physical and cyber theft, forced technology transfer, and evasion of U.S. export controls (Trump, 2018). Trump also claimed that Chinese technology companies such as Huawei and ZTE use China's state subsidies to install communications equipment around the world at a price below cost, and said that if ZTE or Huawei's equipment is purchased, "back doors" will be installed to steal important data (Trump, 2020). Trump also claimed that China hacked Google in 2015 and stole sensitive information from Americans, and said that China used the collected data to influence, threaten, and blackmail American citizens for China's national interests (Ibid). For example, President Trump claimed that the Chinese app TikTok automatically captures a large amount of information on users and can "probably" allow the Chinese government to access personal information (Trump, 2020). In addition, President Trump has also linked the digital content of Chinese technology to the identity of China's authoritarian state, strengthening the "otherization" of Chinese technology in the United States. For example, President Trump said that apps such as TikTok and WeChat would be used by the Communism party of China to censor sensitive content, such as content about the Hong Kong protests and the Chinese government's actions against Uyghurs, and to help the Chinese government spread disinformation (Trump, 2020) .

Through the identity narrative, President Trump has portrayed China as an authoritarian state that harms American interests, and introduced issues such as privacy and human rights that have attracted much attention in the United States. By this, president Trump reinforced the shared ideas of the U.S. government and U.S. citizens on this issue, strengthened the identity confrontation between the United States and China's technology, guided U.S. policymakers and the public to feel the urgency of the situation that Chinese apps such as TikTok and WeChat which are widely used in the United States are creating security risks.

4.1.4 Action planning: "Entity list"and "The clean net work"

Since 2017, the Trump administration has consolidated the overall tone of its hard-line policy toward China through high-frequency discourse, and its related actions in the field of science and technology have become more and more intensive. This is manifested in trade sanctions on Chinese technology products and restrictions on the flow of Chinese data in the United States.

On June 15, 2018, the Office of the United States Trade Representative announced the list of products subject to tariffs on China, and these products subject to tariffs are mainly high-tech products made in China, which are closely related to China's current high-tech manufacturing policy (Zhou, 2019:p.57-58). On August 6, 2020, President Trump signed an executive order in response to the threat posed by WeChat and Douyin, announcing that 45 days after the issuance of this order, within the scope of applicable law, anyone is prohibited from interacting with Tencent, ByteDance and its affiliates (Trump, 2020). On January 5, 2021, the Trump Administration passed Executive Order 13873 to conduct more restrictions for Chinese information and communications technology companies such as Huawei and ZTE to address threats posed by software applications developed or controlled by Chinese companies (Trump, 2021). On January 18, 2021, Trump announced a ban on domestic use of drones produced by "enemy countries"—including China—to prevent data breaches that can pose threats to U.S. national security and economic security (Trump, 2021). In addition, the Trump administration has also banned the sale of core components to China through export controls, increased scrutiny of investments from China, and repeatedly blocked Chinese capital from financing important U.S. companies. As of the end of August 2020, a total of 10 batches of 296 Chinese technology companies in different fields had received US sanctions (Lang, 2021).

In terms of restricting the digital flow of Chinese companies, the Trump administration has passed the "Clean Network Plan." The Clean Network Initiative is the Trump administration's "comprehensive approach to protecting the nation's assets, including citizens' privacy and companies' most sensitive information, from malicious actors such as China" (US Department of State, 2020). The approach is to try to separate China from U.S. networks by severely restricting the flow of network

data through Chinese-made telecommunications equipment and Chinese applications. After the "Clean Network Plan" is proposed, the information of Chinese telecom companies such as Huawei, ZTE, etc. will be severely restricted in the United States, and they will try to prohibit TikTok, WeChat and other applications from trading with American companies to limit the development pf overseas market of Chinese companies.

4.2 Securitization in Biden's presidency

During Biden Presidency, on the one hand, President Biden upgraded the securitization of China's technology companies in key fields and strengthened sanctions against them. On the other hand, through the construction of the securitization scenario of "the United States must lead China in technology", President Biden pushed the United States to introduce a series of policies to enhance US federal government investment to support US technological innovation. In addition, by promoting the securitization escalation of Chinese technology threats in the Western world, the Biden administration's "technology alliance strategy" has begun to take shape.

4.2.1 Scenario construction: "Technology leadership is national security"

When Biden's presidency began, the Sino-US relationship in technology was already at a low ebb. The situation at this time was that the growth of China's scientific and technological strength had not been greatly impacted by the decoupling policy during the Trump presidency, and China's scientific and technological strength is still maintaining rapid growth. The ranking of China's scientific and technological innovation index in 2021 is 22 places higher than 10 years ago, the three major international science and technology innovation centers in Beijing, Shanghai, and the Guangdong-Hong Kong-Macao Great Bay Area have entered the top 10 global science and technology innovation clusters (Kai and Yang, 2021).

Although the United States maintains a leading position in most fields of science and technology, its data growth in the number of R&D personnel and R&D

expenditure is relatively slower than that of China (Ryan, Fritz and Impiombato, 2021). At the same time, the brutal decoupling policy against Chinese technology in Trump presidency has faced considerable controversy in the United States, and has had a certain impact on American technology sectors (An, 2020). According to the above situation, the Biden administration has carried out "rebuilding the leadership of the United States in the free world" as the basis of its foreign strategy.

In terms of the definition of security and non-security situations, President Biden believes that only when the United States maintains leadership in technology and other fields, especially for China, can the United States ensure the US's national security. At the same Time, President Biden has strengthened the identification of threats to Chinese technology in key technology areas such as AI, biology and telecommunication.

The Biden administration has increased the exaggeration of the severity of the competition the United States is facing in the field of technology, and painted a realistic picture that China is about to overtake American technology leadership. For example, President Biden said that the U.S. faces the "most severe" crisis and that winning the tech competition with China is crucial for the U.S. (Biden, 2021). As he said in a speech announcing key science advisors:

> " We also face some of the most dire crises in generations, where science is critical to whether we meet this moment of peril with the promise we know that is in reach······how can we ensure the United States leads the world in the technologies and industries of the future that will be critical to our economic prosperity and national security, especially as we compete with China and other nations? (Biden, 2021)"

In technology field, President Biden also strengthened the harsh description of competition in the new edge technology field——that new technologies are emerging rapidly, and that investment in new technologies by countries such as China is bringing challenges to the US national security (Biden, 2021). China is actively investing in areas such as semiconductors and batteries, while the United States has stagnated in investment (Biden, 2021).President Biden also claimed that the United

States was once a major net exporter of technology, but that the United States is now increasingly using software applications owned or controlled by foreign adversaries (Biden, 2021).

After a subjective description, Biden has repeatedly proposed that only the United States maintains a leading position in the field of science and technology to ensure the security of the United States. Biden said that the future of the United States depends on whether U.S. investment in technology can keep pace with competitors such as China (Biden, 2021), and it is crucial for the United States to stay ahead of competitors such as China in technologies that critical to national security (Ibid). If the United States needs to lead the world in the 21st century, the United States must become the first (Biden, 2021). When referring to battery technology, Biden said that American universities and automakers must quickly regain leadership in this technology (Biden, 2021).

With regard to the Trump administration's policies, Biden criticized it for not building on America's superiority and hurting specific sectors of the U.S. economy in chaotic ways (Biden, 2021). Biden criticized the Trump administration's policy of decoupling technology to deal with China's technology competition, and believes that strengthening the US's own technology capabilities is the correct way to compete with China.

It can be seen that, in the stage of scenario construction, Biden first painted an extreme picture that the United States may lag behind China in the field of science and technology, and linked the security of the United States with technological leadership, thereby introducing policies related to winning China's technological competition into politics agenda.

4.2.2 Mobilization of Interests:　"Competitor to the US" and "Competitor to the West"

In the interest mobilization stage, President Biden took Chinese technology as the topic to demarcate the scope of interests, and carried out in-depth packaging and interest mobilization according to the established security concept, that is, U.S.

leadership in technology means national security. According to the author's analysis of the corpus data, the interest mobilization of the Biden administration is divided into two levels: international and domestic, and it focuses on the damage to the interests of domestic audience such as American companies, workers and friendly states caused by China's development or market behavior in technology filed.

Biden defined Chinese technology's "interest damage" to the United States and the Western world's technology development through discourse, and emphasize the United States and its allies such as Europe, Japan, Australia, South Korea are in the same "interest group" on this issue, so they should unite with the United States against the technology competition from China. In a phone meeting before the US-Europe summit, when speaking about the cooperation in technology between the EU and the US, Biden claimed that:

"The Trade and Technology Council is fundamentally about setting out an affirmative vision to the world rooted in our shared values and our shared economic interests. Of course, we also have to take account of the fact that China poses a significant challenge in both of these areas and dealing with China's nonmarket practices, its economic abuses, and, of course, its efforts to shape the rules of the road on technology for the 21st century will be important ⋯ ⋯ this fits with the US's fundamental strategy of managing competition with China by coordinating closely with and developing common approaches with likeminded democratic partners and allies(Biden, 2021)."

Also, Biden believes that China's pursuit of a non-market economy over the years has harmed the market economy in Europe and the United States (Biden, 2021) . Based on the basic appeal of promoting international cooperation and encouraging Western countries to strengthen coordination and communication at the scientific and technological level, Biden has incorporated the interests and concerns of Western countries, Japan and South Korea into the agenda of the United States to gain technological advantages over China in an attempt to create a "democratic technology alliance". Biden claimed that European leaders are laudable for not accepting Huawei

in the system because Huawei is not a trusted 5G platform and would pose security challenges in the technology arena (Biden, 2021). Besides, Biden paid great attention to the construction of the technology supply chain and tried to exclude the Chinese factors in the supply chain. Biden has repeatedly claimed that an open and secure supply chain should be built with trusted countries and political entities such as the EU, Japan, and South Korea (Biden, 2021). The description of a "safe" supply chain implies that it is "unsafe" to include any Chinese supply chains, and that it is in the common interest of democracies for Western countries to reduce export restrictions and share technology.

At the domestic level, Biden has defined domestic companies, the commercial sector and American workers as a community of interests in technology competition with China. Biden has repeatedly called on the private sector to join the U.S. efforts to compete with China in technology. For example, at the U.S.-EU summit, when Biden mentioned dealing with China's competition in the setting of standards in the technology industry, Biden proposed that private companies should join the U.S. government's efforts. when it is in line with the values and interests of American companies (Biden, 2021). In addition, President Biden followed President Trump's discourse to claim that the operations of Chinese companies allow American workers to compete on an unfair environment, saying that China is harming the US's interests by allowing companies to gain an advantage over competitors by exploiting workers and deeming wage suppression (Biden , 2021). By saying that China's actions causing harm to American companies and workers are irreversible (Biden, 2021), President Biden strengthened the necessity of a series of tough policies to cope with the technology issues with China.

It can be seen that in the interest mobilization stage, Biden portrayed China as a challenger to the interests of the United States and the free world. Biden believes that the technological development of China, a country whose values are different from those of the West, will encourage Chinese companies to harm the interests of the United States and Western allies by means of unequal market competition and undermining supply chain security.

4.2.3 Identity Building: "Competitor" and "Limited Partner"

After completing the scenario construction and interest mobilization, President Biden further shaped China's identity as a "technology competitor", but also desecuritized China in the some sectors of science and technology. The way in which securitization and de-securization are unfolding at the same time highlights the Biden administration's reflection on the Trump-era technology policy toward China, as well as its ambivalence toward the US's technology policy towards China. President Biden has portrayed China's progress in technology as a serious challenge to the free world, strengthening the binary opposition between Chinese technology and Western free technology.

On the one hand, President Biden has portrayed China as a competitor to the United States. President Biden claimed that China is attacking the economic prosperity of the United States and the value of human rights in the world and global governance (Biden, 2021) and said that China has posed a major challenge to the United States in the fields of technology and economy. Also, president Biden constructed China as a disruptor of the existing technological rules, as he said China was trying to develop a 21st century technology path rules, while China must be blocked (Biden, 2022). By constructing the identity of China as a "challenger", Biden answered the question of "who is responsible for the current situation".

On the one hand, President Biden highlighted Chinese technology, which is considered as "other", has created infringement on the US's interests, as China poses challenges to American values of prosperity, security, and democracy (Biden, 2021). On the other hand, President Biden constructed a "victim discourse" that highlighted U.S. losses due to Chinese technology, such as those software applications owned, controlled, governed or directed by foreign adversaries (including the People's Republic of China) poses a threat to the United States (Biden, 2021).

At the same time, the Biden administration has also strengthened the construction of common identities with allies to repair alliances relations that wrecked under Trump presidency. For example, while talking about strengthening cooperation

in science and technology and elastic supply chain cooperation, President Biden emphasized that the Indo-Pacific is inclusive and resilient, and said that the partnership between free countries is a cornerstone of regional prosperity(Biden, 2021).The Biden administration has repeatedly proposed to lead the free world, saying that "America is back" and proposing that the United States led the world in technology in the mid-20th century, and now the United States will lead again (Biden, 2021).

Unlike President Trump, President Biden has desecuritized China's technology in some areas, believing that the United States and China can cooperate in limited fileds. President Biden stated that the United States will be ready to cooperate with China when it is in the interests of the United States, including in the field of climate and the medical field about ending the COVID pandemic (Biden, 2021). Also, President Biden proposed that the US does not to seek a new Cold War with China (Biden, 2022), which leave space for US-China cooperation in other technology fields.

The Biden administration tries to make necessary responses and standpoints to the rapid development of China's science and technology through a balance of discourse policies. At the same time, based on the reality of the lack of growth momentum of the US's own scientific and technological strength, President Biden is well aware that it is not advisable to forcibly decouple from China based on the US's own scientific and technological strength. Therefore, while Biden is constructing the identity of the "other" in China, he also strengthens the common identity building with the US's allies, paving the way for the introduction of the "technology alliance".At the same time, the Biden administration has desecuritized Chinese science and technology in some fields such as climate technology, and does not rule out cooperation with China in every technology fields.

4.2.4 Action Planning: "Promoting Domestic Innovation" and "Science and Technology Alliance"

In view of dealing with China's development in technology and the clear goals given by the Biden administration, the relevant action planning discourse is currently

showing an increasingly clear agenda setting. First of all, in order to achieve the goal of leading China in technological development in the United States, the Biden administration proposed to stimulate domestic technological innovation capabilities by strengthening federal investment. In the "Ensuring the Future Is Made in All of America by All of America's Workers Act", all agencies of the U.S. government should help U.S. companies maximize their competitiveness and increase the employment rate of U.S. workers. Approaches to achieving the goals of the executive order include evaluating products and materials that are not made in the U.S., and assessing whether imported products would be detrimental to U.S. interests (Biden, 2021).The executive order provides a policy basis for the Biden administration to restrict the import of Chinese technology products.

In "Executive Order on America's Supply Chains", President Biden said that building a resilient supply chain would help the United States respond to sudden technology-related crises and maintain the United States' competitive advantage in R&D capabilities and manufacturing capabilities, and proposed to work closely with countries that share American values on resilient supply chains to ensure collective national security (Biden, 2021).

In the "American Innovation Act", both House and Senate versions plan to allocate $52 billion in federal funding to subsidize and invest in the U.S. semiconductor domestic supply chain, and authorize $80 billion in funding for the National Science Foundation over the next five years to strengthen the U.S. advanced technology R&D and scientific research (America Compete Act, 2022).

According to the identity construction of China's "authoritarian challenger", the Biden administration tries to form a "technology alliance". For example, during the meeting with British Prime Minister Boris Johnson in June 2021, President Biden highlighted that the United States and the United Kingdom will develop a landmark bilateral technology partnership to ensure the safety and technological leadership of American and British citizens (Biden,2021) . In addition, Biden launched the U.S.-EU Technology Council, which will expand trade and investment relations between the U.S. and the EU, coordinate technology and standards development, and drive digital

transformation that fosters innovation and democratic values (Biden, 2021).

In addition, Biden inherited the policy on Trump presidency of imposing technology sanctions on China. For example, after constructing China's identity as a human rights violator, the U.S. Department of Commerce added five Chinese technology companies to the list of entities citing China's violations of Uyghur human rights (Biden, 2021).

In terms of de-securitization, the Biden administration has reversed the brutal decoupling of China during the Trump administration. Biden has revoked Trump-era sanctions on China in non-critical tech areas. For example, in June 2021, the Biden administration reversed the ban Trump had tried to impose on TikTok and WeChat （Biden，2021）.However, the new executive order issued at the same time by the Biden administration will conduct a long-term security review of applications in all rival countries, which can be seen a broad upgrade of securitization. It can be seen that the actual technology policies of the Biden administration is constantly repeating between securitization and desecurity.

5. Conclusion

Back to the research question of the thesis: why has the Sino-US technology relation changed? The author believes that through the analysis of corpus, the following preliminary conclusions can be drawn: the change of technology relations has undergone a relatively complete securitization process of Chinese technology and Chinese technology, and some technological fields are still in the process of upgrading securitization. As the two presidents Trump and Biden changed their views on China and Chinese technology, they constructed the concept of Chinese technology through political discourse, which led to the introduction of a series of related policies that eventually led to changes in the relationship between China and the United States in technology. The Sino-US science relation has changed from a cooperative relationship in the past to a competitive relationship.

The author also believes that this thesis can sort out the securitization process of Chinese technology in the United States. As for the Trump presidency, In the stage of scenario construction, President Trump linked the economic security of the United States with national security. Economic security is the first time that national security was mentioned in the National Security Strategy Report, reflecting the expansion of security issues in the United States. During the identity construction phase, President Trump put China on the political agenda by proposing that China is one of the important reasons of threatening the economic security of the United States. And because technology products are an extremely important part of the economic exchanges between China and the United States, President Trump has gradually shifted the focus of economic and trade policies to the field of science and technology, realizing the second generalization of securitization.

During the Biden presidency, President Biden linked "the United States' leadership in technologies" with "national security" through scenario construction, and painted a picture that the United States may lag behind China in technological development. President Biden includes as many Western allies as possible into the interest community against China's technological development, and constructs China

as a "threat to the Western free world" in the identity construction stage, so that Chinese technology has been experienced securitization upgrade in most Western countries. At the same time, the Biden administration has desecuritized some technology-related fields, such as climate cooperation and technology personnel exchanges, but it has also strengthened the security of Chinese technology in edge technology fields such as semiconductors and batteries.

It can be seen that, in general, Chinese technology in the United States has experienced a rising process of securitization. Especially during the Biden administration, the securitization of Chinese technology led by the United States has been raised to the securitization of Chinese technology in the Western world. Although China lags behind the United States in overall scientific and technological strength, the two states currently lead all other countries in science and technology R&D spending. Today's US government's escalating approach to the securitization of China's technology may lead to the fragmentation of scientific and technological progress in the world, which is not conducive to the development of science and technology on a global scale. The author hopes that with the efforts and understanding of both sides, a desecuritization process of Chinese technology in Western countries can be reached as soon as possible, and the technology relations between China and the US can go back to the historical track of cooperation.

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