The role of media in political agenda-setting:
The construction of a policy problem in the United States and China

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1. Preface

The representation of climate change as a policy problem has evolved significantly since the first scientific findings. Indeed, portrayal of climate change has been differed by time-period, country, and media type. Thanks mainly to incremental gains in public awareness over time, the discourse surrounding the issue (in media as well as political circles), has become increasingly heated. Despite of this, differences between policies implemented to combat climate change remain pronounced between countries. While some states such as Sweden or Denmark have been implementing policies to address the phenomenon for years, countries such as the United States and China have been repeatedly criticized for their inaction on the issue. However, policy adjustments have been swift: a lack of commitment to change during the Conference of Parties 15 in 2009 stands, in both countries, in stark contrast to the bilateral agreement announced in 2014. While several hypotheses have been presented to explain this shift in environmental public policy, the role of the media as a major player in the representation of the policy problem (and, thus, the policy image as a whole) has not been explored until now. This thesis aims to fill this gap in the literature by studying the relationship between the media agenda and the political agenda in 2009/2010 and 2014/2015 to determine whether a.) An evolution can be discerned in the discourse surrounding climate change, and b.) Whether this could have impacted the political agenda-setting in the United States and China.

The results of the analysis show that the representation of climate change in the media is strikingly dissimilar between the first and the second analysed periods in both cases. Moreover, there is a significant difference in the two countries with regards to media representation of the issue. While the strength of discourse surrounding climate change has increased over time in the case of the United States, it has decreased in China. These finding contrasts with the political discourse however, in which the difference over time is less striking and is representative of the discussed veracity of political speeches that are often non-evocative of the political action that is undertaken. The results permit an exploration of the relationship between media-based representation of a problem and the phenomenon of political agenda-setting, as well as facilitating the further study of several fascinating issues such as the contrast

in the relationship between the media-and-political spheres in countries having differing press freedom.

2. <u>Acknowledgements</u>

I would like to thank life for the opportunities I had to travel and discover beautiful and diverse landscapes that made me discover the beauty of nature worldwide from the quite dunes in the Netherlands up until the wild Amazonian forest near Manaus in Brazil. My travels also taught me that what is created by nature is magnificent but also fragile. The dunes could be victim of the rising sea levels and the forest could disappear due to deforestation. Then, my state of mind concerning nature changed and whereas before I saw it as a gift, I then started to see it as something to protect. I continued my travels and felt the unbearable and rising heats in the Death Valley, in the United States, I saw the consequences of the tsunami near Ambalangoda in Sri Lanka even ten years after the catastrophe took place and I then measured the danger of climate change.

My passion for protecting the environment grew even more after participating at the Conference of Parties 21 thanks to an internship where I could realize all the efforts that can be done on this particular issue and the leading role politics have in the protection of our nature. Combined to my admiration for Michel Foucault and his work on the power of discourse, I tried to explore the discourse surrounding my favourite topic.

For giving me the freedom to research on the issue I care the most for, I would like to thank Erasmus University.

Finally, I would like to acknowledge the precious advice I received from every person that agreed to listen to my changing line of thought during the long thesis writing process including Olivier Blarel, Peter Scholten, MaxWell McCombs, Frank Baumgartner, my relatives but also my cat.

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5. Introduction

After months of negotiations behind closed doors, the United States and China (the two largest economies as well as polluters worldwide) signed a joint agreement on climate change in Bejing on November 11, 2014 (Landler, 2014). The announcement, that outlined a.) A U.S. commitment to reduce emissions by 26-28% below 2005 levels by 2025 (The White House, 2014), and b.) Beijing's commitment to attain its carbon emission peak by 2030 (Meltzer, 2015), took both the international community and the media by storm (Landler, 2014). Though the proposed pathways for achievement vary greatly (the United States underlined the importance of technology in the reduction of global warming while the Chinese government highlighted its future intentions of commitment to Green Climate Fund through spending three billion dollars to help developing countries in their environmental protection programmes) (Meltzer, 2015), the bilateral agreement is widely seen as the beginning of a process of environmental efforts on the road to the Conference of Parties 21 (COP21) as it exposed both countries' ambitions to position themselves as leaders of the Paris climate summit. As a matter of fact, the superpowers have expressed their desire to achieve challenging goals regarding environmental matters not only through the bilateral agreement in 2014, but also during a Xi Jinping's Presidential visit to Washington D.C. in 2015 (which re-affirmed the position taken by the two countries in 2014 and throughout their national contributions for the COP21) (Meltzer, 2015). The two countries' shift in environmental policy has perplexed journalists and scholars worldwide alike, as it has challenged previously accepted discourse pertaining to climate change's position on the political agendas (defined as "the focus of public attention'') (McCombs, 2002, p.4) of the United States and China.

Western media has portrayed this policy shift as historical (Meltzer, 2015). Indeed, prior to the Conference of Parties 15 (COP15) in Copenhagen (2009), the United States and China were fiercely opposed to the implementation of constraining environmental agreements. As a matter of fact, the two countries have been as accused of being partially responsible for the failure of the 2009 Climate conference, which has been widely regarded (by both the international community and the media) as disastrous. While Conferences of Parties have often been criticized for their relevance and for the non-binding nature of the agreements made, COP15 – which has

been viewed as the least fruitful Conference of Parties since the initial Berlin conference in 1995 – has been given a particularly bad review. According to statistical analysis conducted by The Center For Science & Technology Policy Research, the post-COP15 period has resulted in the highest peak ever achieved by the media in terms of number of articles discussing the issue of climate change. The results of this study can be found in the *Figure 1* below.
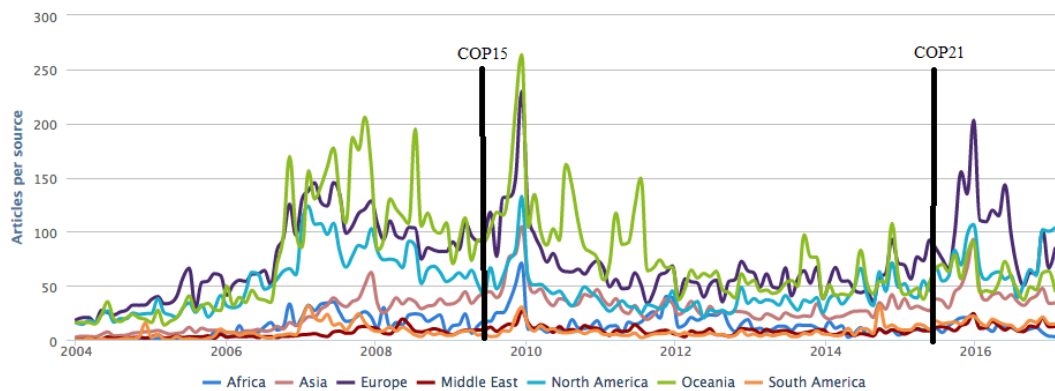
Figure 1. 2004-2017 Newspaper coverage of climate change and global warming worldwide (CIRES, 2017)

The study by the American policy research center shows differences in media coverage by region, with Oceania receiving the most coverage of climate change and the Middle East receiving the least. In addition, three distinct peaks can be identified in the graphic. As previously mentioned, the first peak coincides with the end of the COP15 in December 2009, and attains more than 250 articles per studied source on the topic of climate change. The two other distinct peaks manifest in December 2007 (at the end of the Conference of Parties 13 in Bali) and in January 2016, one month after the COP21. As these peaks are considerably less pronounced than the one that followed COP15, it can be surmised that the 2009 conference has received a disproportionately high degree of attention from the media. Studies have shown that since COP15, the global environmental discourse (especially within social media) has become gradually more alarming (Van Eck, 2016). Moreover, the time frame in which the media discourse on climate change has taken on a frightening tone corresponds with the year in which the United States and China have made a shift in their environmental policy. Indeed, only four years after the media peak in 2009, the two studied countries ratified a bilateral climate change agreement. Given this

observation, the study of the media agenda (defined as the issues the media opt to tackle) as possible driver for the environmental policy shift of the United States and China, seems relevant – especially considering the fact that several studies have verified the impact media can have on political action (McCombs, 2002).

In order to investigate the link between the media agenda and the political agenda in the selected countries to understand a policy shift, the first agenda-setting theory introduced by Maxwell McCombs and Donald Shaw in 1972 (also referred to as "mass communication theory") will be used in relation to the punctuated equilibrium theory presented by Frank Baumgartner and Bryan Jones in 1993. These two theories have been chosen because the Maxwell and McCombs is the only agenda-setting theory focusing on the role of media in influencing the political sphere and the Baumgartner and Jones theory looks into the causes of a policy change including the role of the policy image. Thus, the first theory looks at the media as influencer of a policy image and the second theory allows us to make a link between policy image and political-agenda setting. These two complementary theories have been put together in order to have a strong theoretical link going from the media until political agenda-setting. Moreover, A discourse analysis, corresponding to "the assignment of meaning(s) to the expressions of a discourse" (Van Dijk, 1985, p.107), is conceptualized to verify whether the media agenda has evolved and/or is related to the political agenda in the light of these two theories.

The inquiry of the previously mentioned topic will be operationalized through the following research question: **"To what extent has the relation between media framing and the political agenda evolved in the United States and China from 2009 until 2015?"**. The link between the two cases as well as between the media agenda and the political agenda will be studied and the validity of two influential agenda-setting theories will be challenged. This will be done through the following structure: a first chapter will present a literature review of the studied topics, a second chapter will introduce the theoretical framework, a third chapter will discuss the research design; a fourth chapter will expose the analysis done in line with the explanations in the three first chapters and a final chapter will discuss the results through the lens of the selected agenda-setting theories.

Throughout the entire thesis, this paper aims at positioning itself at the crossroads of four main study fields as detailed in *Figure 2* by selecting the most salient components of each study field in order to combine them in a unique study with a multiple relevance and more complex and rigorous vision thanks to the use of different fields of study.
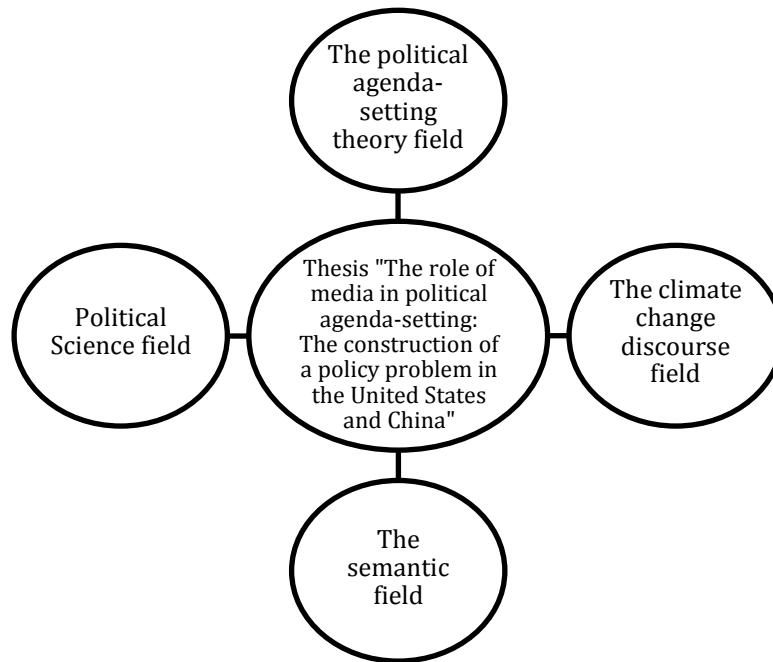
Figure 2. The thesis at the crossroads of four important study fields

Theoretical and Societal Relevance

The paper comparing state of the media agenda since the environmental public policy shift in 2014 with the bilateral agreement, will attempt to complete the perspectives existing on the understanding of the environmental policy shift since the relation between the media agenda and the public agenda-setting of the two countries concerning climate change has not been assessed yet. Since scholars have encountered divides among themselves and difficulties to explain comprehensively the environmental policy shift, this thesis could add to a better understanding of the phenomenon taking place in two major economic and environmental players.

In addition to this, this thesis could complete the academic literature on discourse analysis if the research design permits for an analysis that is as objective as possible. Since the discourse analysis methods have been frequently criticized within the

literature, the method of analysis could improve the methods of discourse analysis available for a limited subjectivity. Finally, this paper aims to complete the academic literature on the evolution of the environment discourse through the case of the United States and China. Indeed, in the light of the McCombs and Shaw theory and the punctuated equilibrium theory, the environmental discourse on the media agenda and the political agenda in the two countries can be compared, and the results will complete the academic literature on environmental discourse. The difference between traditional media such as the press and social media (as considered by the academic literature) in the spread of environmental discourse will be referred to throughout the research to increase the preciseness of the literature on environmental discourse comprehension.

6. Literature Review

Throughout the literature review, several topics will be inquired that will answer the following questions:

- *"What is discussed in the academic literature on the 2014 bilateral climate change agreement between China and the United States?''*
- *"What is discussed in the academic literature on the agenda-setting theories?''*
- *"What is discussed in the academic literature on the role of media in society and politics?"*
- *"What is discussed in the academic literature on environmental discourse?''*

Available literature and arguments on the American as well as the Chinese environmental policy shift will be discussed first, with theories pertaining to agenda-setting being outlined secondly. Finally, discourse analysis theory will be reviewed and the history of environmental discourse will be explored.

A. The American and Chinese environmental policy shift

The appearance of climate change on the international political agenda within the United States and China through their bilateral agreement on climate change in 2014 and through their leadership at the COP21, has been broadly noticed and analysed by the international media, largely because the two countries were known as the world's biggest polluters as well as policy obstructionists on the issue (see COP15) (Landler, 2014). The shift in environmental public policy from the United States and China, which has been formalized internationally by the 2014 agreement, has been explained through a public choice theory approach. Reports such as *"Bilateral Cooperation between China and the United States: Facilitating progress on Climate-Change Policy''* have described the policy shift as deriving from the countries' shared interests in maintaining trade relations. According to this study, carbon trading between the two countries and bilateral relations are at the center of the American and Chinese interests (Aldy, Brewer, Ji, Sha, Yue, Stavins, 2016).

The domination of political will by policy entrepreneurs has also been studied in the academic literature in order to explain the environmental policy shift in the two

countries. Indeed, some argue that within the two actual political systems in the studied countries, the conditions are favorable for the political leaders to take strong strategic actions. The election of Barack Obama has often been viewed as a driving factor in the policy shift, as the time frame surrounding the introduction of climate change on the political agenda in the United States corresponds to the election of the former President. Moreover, scholars seem to believe that Barack Obama's membership of the Democratic Party has played a significant role in facilitating an environmental political shift, as his Republican predecessor adhered to party lines which were traditionally more reserved on environmental policies (Bomberg, 2009). In China, president Xi Jinping, elected in 2013, has also been seen as a leader of the environmental public policy in the country. The change in leadership has been associated with the prospect of improved and adapted environmental policies aimed at mitigating the detrimental effects of climate change in China (Climate change has been credited with causing direct effects such as smog but also indirect consequences like conflicts concerning water and food security in the country) (Grumbine, Xu, 2013).

Mr. Jinping's capacity for enacting change notwithstanding, it is argued that his political stance derives mostly from the success of the previous Five-Year Plan environmental goals (Seligsohn, Hsu, 2016). In addition to this, China's disastrous environmental conditions have also been seen as drivers for pro-environmental policy. A survey conducted in urban China concluded that pro-environmental behavior is intimately linked to the experience of environmental harm (Chen, Peterson, Hull, Lu, Hong, Liu, 2013). This implies that a.) Mentalities are changing in China due to the increased exposure to environmental harm, and that b.) The government adapts its policies to contribute to the needs of the population and avoid civil unrest. However, despite numerous studies on the evolution of Chinese and American green politics, scholars remain divided on the factors that led to an environmental public policy shift in both cases. The divide among scholars concerning the environmental shift in China and the United States shows there are other determinants in need of exploration to understand the public policy shift. In the case of the United States, the research on this policy shift has been extremely limited in addition to being divided. Thus, a new angle of study adding to the academic literature for both cases would be highly relevant.

The hypothesis of the media agenda affecting the political agenda has not been studied as factor of public policy shift despite evidence showing an evolution in form and power of environmental discourse. Therefore, the relation between the media and the political agenda concerning climate change has been chosen as topic for this thesis.

B. The agenda-setting theories

The relevant literature on the chosen Maxwell McCombs and Donald Shaw agenda-setting theory as well as the punctuated equilibrium framework is extensive, as both approaches – along with the Kingdon agenda-setting theory – are extremely influential in the policy agenda-setting domain, and remain the most used in their field despite recent emergence of theories focusing on "quiet agenda-setting'' as well as "agenda-setting under constraints'' (McCombs, Shaw, 1993). Each of the three dominant theories has a different approach to the phenomenon of agenda-setting, and thus divides scholars on the validity of their perspective (Hassenteufel, 2010).

The Kingdon model has been often criticized by scholars for a.) Its inability to assess policymaking through a stream-based (containing a "political stream'', a "problem stream'', and a "policy stream") approach, and for b.) Its focus on only one type of ''policy window'' (An opportunity to create public policy) rather than considering several policy windows and making them compete to understand which dynamics lead the most often to the creation of a "policy window" (Soroka, 1999). Moreover, the lack of flexibility of the model that can be adapted to only several types of Western political regimes is a problem for several agenda-setting authors. Scholars such as John Keeler have attempted to bridge this gap by proposing a more sophisticated version of the Kingdon model through the presentation of case studies that observe the complexity of "policy window" mechanisms and the importance of the size of "policy windows" (Keeler, 1993). Simultaneously, the McCombs and Shaw theory, that is nonetheless extremely popular, has been criticized for a.) Its difficulty to establish a positive correlation between the media agenda and the public agenda, and for b.), Their use of cases limited to examples from the United States up until their 1997 publication, which focused on more diverse cases including Britain, Germany, Israel, Italy, Japan, The Netherlands Spain and Taiwan (Kaid, 2004). Scholars have also highlighted that studies on basis of the model remain focused on

countries with a high press freedom, whereas several important political actors, such as China, score low on press freedom indices (China is considered as ''Not Free'' with a score of 87 on 100 with 100 being the lowest grade, by Freedom House index in 2016 (*''China''*, The Freedom House, 2016). It is thus relevant to study the correlation between the media agenda and the public agenda in countries with a low freedom of press index, as doing so has the potential of adding a crucial dimension to the initial agenda-setting theory. Moreover, a distinction between classical forms of media (such as the press) and contemporary manifestations (such as social media) has the potential of adding to the three-level agenda-setting model of Maxwell McCombs and Donald Shaw, as the level of influence of social media is ever increasing within our contemporary world and has been projected to have a considerably more significant influence on the public agenda than was posited by scholars identified in 2014 since social media in China have been found to be drivers in environmental awareness since the diffusion of the documentary ''Under the dome'' in 2015 that has been censored by the Chinese government (Tan, 2012). Nonetheless, cases using the selected agenda-setting theory to study social media are extremely limited and a comparison between traditional and social media has not been done so far, as the academic literature deplores (Zhang, Johnson, Seltzer, Bichard, 2010).

In addition to the two influential agenda-setting theories discussed previously in this section, the literature also discusses the punctuated equilibrium theory. This theory by Franck Baumgartner and Bryan Jones focuses on the causes leading to policy stability and a sudden policy change with a focus on policy subsystems leading to the appearance of issues on the political agenda (McCombs, Shaw, 2014). It has been applied to over 50 cases in order to study agenda-setting, and (much like is the case with the McCombs and Shaw theory), has featured the concept of policy image prominently. The theory has been criticized for its lack of universality since several scholars have argued that policy punctuation takes place in certain cases but that this pattern is extremely limited (Givel, 2010).

In addition to the previously outlined frameworks, several other agenda-setting theories (such as the "constrained" and the "quiet" models) can be found within the academic literature (Hassenteufel, 2010). Nonetheless, the three dominant theories remain the Kingdon model, the McCombs and Shaw theory and the Baumgartner and Jones model. Within the area of agenda-setting literature, different views compete to explain policy shifts. As these theories diverge mainly in their areas of focus, they

frequently incorporate complementary or common aspects. Therefore, there is room within the agenda-setting literature to outline an alternative model which is geared towards a.) Developing a better understanding of agenda-setting and b.), Coherently unifying the previously outlined theories. As an example, complementary theories, such as the punctuated equilibrium theory and the McCombs and Shaw theory, could be combined to produce a model which incorporates a wider range of variables. The Baumgartner and Jones model focuses on the shift in policy stability with a focus on the role of policy image without entering the formation of policy image into depth whereas the McCombs and Shaw theory focuses on the creation of policy image through the media but is more limited in the connection to policy shift: as these focus areas do not compete per-se, a unification (due to its potential of increasing overall explanatory power) is advisable.

C. The role of media in society and politics

The role of media in society as well as the power of this industry have fascinated scholars for years since the rise of modern media and for this reason, a lot of literature is available on the topic and an entire field, the media field, is dedicated to the research on this topic and its exploitation (Doyle, 2002). The academic literature seems to be mainly divided concerning the assessment of the power of media on society and politics: Some scholars such as Kenneth Newton and Gillian Doyle argue that the media have an inconceivable power on our modern societies and politics but on the other hand, other authors such as Nick Couldry and James Curran are more critical of the general idea that media rules the way of thinking of our politicians (Newton, 2006) (Doyle, 2002) (Couldry, Curran, 2003). Indeed, according to these authors, the shift of power from traditional media to social media has weakened the impact of media by diffusing the power as well as its targets (Shirky, 2011). Nonetheless, it is believed that a new structuration of the media sphere in this crucial time of change for the field could in the end give more power than ever to the media (Shirky, 2011). Until now, the most recent studies have been gathered around the Arab Spring events since this political and societal event has been considered as the first one to show the real power of social media (Gerbodau, 2012).

Indeed, since the start of the twenty-first century, the scholars writing on the power of media and its relation to politics have decided to focus on social media as a form of

media due to its recent and rising influence (Gerbodau, 2012). However, the field therefore totally neglected the study of traditional media as a form of power recently. Therefore, it would be highly interesting to study the power of traditional media in certain political events, like the research on social media has done for the Arab Spring case. Finally, the field lacks studies on the relations between the traditional and social media that can highlight the complexity of power the media in general can have. The power of the combination of traditional media and social media has rarely been explored nowadays and a study taking into account this recent association of power would be extremely relevant in the context of a changing media field. For this reason, this paper will keep in mind the differences of scope and influence between the two main types of media and attempt to assess the power of traditional media on a recent issue also involving social media.

D. The environmental discourse

Changes in environmental discourse over time have been studied extensively. Nonetheless, studies looking into environmental media discourse in the United States and China are limited, and a comparison between the environmental discourses in the media in the two countries has not been previously conducted. Scholars that have studied environmental discourse can be generally divided into two camps; the first estimates that the exposure of environmental issues is omnipresent in contemporary times, and contends that this has led to discourse surrounding environmental issues taking on an increasingly alarmist tone. The positions of this camp follows the logic of a survey conducted by Chinese and American scholars which claims that exposure to environmental harm increases pro-environmental behavior (Chen, Peterson, Hull, Lu, Hong, Liu, 2013). Another group, mainly composed by American authors, deplores the fact that other issues such as crime rates are more often on the media agenda than environmental issues, and contends that the audibility of environmental discourse is in need of significant improvement (Miller, Pollak, 2012). According to these scholars, the problem is not linked to the nature of the environment discourse but to its diffusion and valorization by the media. Scholars such as Vandana Shiva that advocate on the behalf of a "green revolution" in all layers of society (including the political sphere) are uncommon (Shiva, 1991). However, this skepticism also derives from an over-representation of American scholars discussing environmental

discourse which draw primarily upon the situation in their own country to guide analysis: Studies have shown that the environment is less present in the information sources then entertainment and crime in the United States (Miller, Pollak, 2012). It is important to note that authors from other countries (such as Vandana Shiva, who is from India) have a different view of the nature and diffusion of environmental discourse in the media (Miller, Pollak, 2012). American studies have a tendency to reflect the interests of American society and non-environmental awareness among the population. Indeed, as the study of Sanparith Marukatat shows, the media tends to mirror the concerns of societies. In the United States, for example, press coverage of environmental issues generally gravitates towards a focus on wildlife conservation (Studies have shown that this particular issue is important for the American population) (Marukatat, 1991).

An empirical study conducted by the Center for Science & Technology Policy Research (CIRES) has shown that newspaper coverage of climate change and global warming between 2004 and 2017 worldwide has remained equal and that the peak in media coverage on climate change throughout the world took place in 2009 (after the Copenhagen conference that has been portrayed as a disaster by the international press). Nonetheless, this statistical study fails to analyse the nature of the environment discourse, and neglects to investigate the media campaign's impact on the population. Moreover, the available studies on the spread of the environment discourse in the media are constrained to counting the number of articles produced in mainstream media, and often ignore another powerful tool in the spread of information: social media.

Considering the gaps in the literature surrounding climate change's infiltration on the political agenda in the United States and China, this paper will attempt to enrich the academic literature by merging the agenda-setting theories, discourse analysis and environmental discourse. The study of climate change as "object" through the McCombs and Shaw theory and the punctuated equilibrium framework in the United States and China has not been explored, and represents an interesting case study to contrast to other research conducted in these countries on the impact of the media agenda on the political agenda in order to complete the agenda-setting theory literature. Furthermore, in order to add to the agenda-setting theory debate, (as mentioned earlier) the application of such theories to a country with limited freedom of press (such as China) presents an opportunity to produce relevant / interesting

material for comparison to the United States. Indeed, The U.S. has recorded a positive correlation between media agenda and public agenda in the past (McCombs, Shaw, 1993).

7. Theoretical Framework

The section discussing the theoretical framework will be dedicated to answering the following question:

"Which agenda-setting theories will be used and for what reason?"

This question will be answered through two sections. A first section will justify the theory choice and will detail the chosen agenda-setting theories with a first part on the Maxwell McCombs and Donald Shaw agenda-setting theory, a second looking into the punctuated equilibrium theory by Frank Baumgartner and Bryan Jones and a final part on discourse analysis as a tool. A second section will apply the theories to the environmental policy case in The United States and China. The relation between the theoretical components will be as explained in *Figure 3* below. Indeed, each theory used will be a step towards a complete and global analysis.

The Maxwell McCombs and Donal Shaw theory		The discourse analysis tool		The Frank Baumgartner and Bryan Jones theory
•Definition of a level of analysis	→	•Creation of a coding	→	•Relation between policy image and political agenda-setting
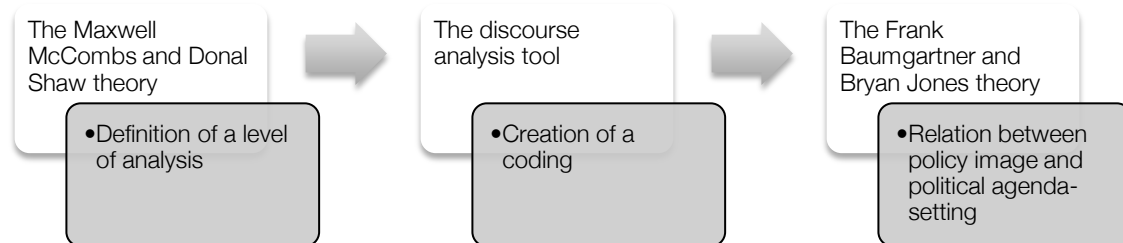
Figure 3. The relation between the theoretical components

A. Justification of the choice of theories

The McCombs and Shaw as well as the punctuated equilibrium agenda-setting theories have been chosen to answer the three hypotheses. However, as detailed in the literature review, other agenda-setting theories exist, including one other particularly dominant theory: the Kingdon agenda-setting theory. This theory has a high focus on the political factors leading to the political agenda-setting phenomenon and could be complementary to the McCombs and Shaw theory and the Baumgartner and Jones framework that targets media and interest groups as factors. Within the political

theory by John Kingdon, the phenomenon of agenda-setting is seen as being comprised of several "policy windows", a term coined by John Kingdon to describe the creation of opportunity for new public policies, that can be created if three conditions are met (Hassenteufel, 2010).

However, the Kingdon theory has not been selected for this thesis for several reasons. First, this thesis aims at studying the link between a.) The media and the political agenda, b.), The possible impact of the evolution of a policy image that corresponds to the framework created by McCombs and Shaw as well as to the punctuated equilibrium created by Baumgartner and Jones. Moreover, as the academic literature has already pointed out, the Kingdon agenda-setting theory lacks flexibility and has previously only been applied to particular (Western) case studies in which "policy windows" are the most easily created (Hassenteufel, 2010). Since this paper will consider two highly different cases, the utility of the Kingdon theory is expected to be limited in terms of flexibility to assess accurate findings for both the United States and China (Soroka, 1999). In addition to this, since this paper aims to compare two cases, the investigation of all the factors included in the Kingdon agenda-setting theory (such as the political dynamics, the public opinion, focus events and the technical feasibility of solutions) is impractical due to operational constraints. Indeed, as the academic literature has identified, the variables in the Kingdon agenda-setting theory are too numerous to be correctly investigated most of the time expect in specific cases where the results are simple to assess (Keeler, 1993). Since this thesis intends to study one topic in depth, taking into consideration all its complexity and assessing differences between countries on the factors influencing agenda-setting, the Kingdon theory (despite being extremely popular / widely used in the research field) fails to adequately meet the parameters which are envisioned as being necessary to achieving the ambitious goals of this paper.

Moreover, the two most recent important theories of political agenda-setting are not applicable to the cases of the United States, China, and climate change. The "quiet" model of agenda-setting and the "constrained" theory of agenda-setting are not adapted. This is because the "quiet" model addresses policy topics that do not get a lot of public opinion or media attention, which is not the case for climate change in the United States and China. Through a different perspective, the "constrained" theory considers policies that are made under the pressure of other parties or institutions (this can happen in, for example, The European Union), and focuses on the interaction of

power between different parties on policy choices (Hassenteufel, 2010). Like the Kingdon model, the "constrained" model does not allow to attain the study goals even though it might be interesting in the future to study the evolution of pressure of the international society or internal actors regarding climate change in the United States and China.

Finally, the theories studying the construction of social problems led by Howard Becker and used in the theory of agenda-setting will be applied in the analysis of the findings within this paper but will not be used as central guiding theory since this type of analysis belongs to the sociological and psychological field whereas this thesis aspires at belonging to the political and sociological fields of study (Hassenteufel, 2010).

B. The Maxwell McCombs and Donald Shaw agenda-setting theory

In order to answer the research question introduced within this thesis' introduction, the McCombs and Shaw agenda-setting theory will be used as a crucial tool to attempt to obtain an understanding of the phenomenon. As described earlier in the literature review, the McCombs and Shaw agenda-setting theory is the first recognized agenda-setting theory, influenced by the work of Walter Lippmann on public opinion published in 1922 (Lippmann, 1921), and has been used extensively throughout the academic literature to understand the phenomenon of public agenda-setting. Moreover, the study has shown positive results of the application of the theory throughout several cases – especially in the United States (McCombs, 2002).

The theory introduced by Maxwell McCombs and Donald Shaw studying the 1968 presidential elections in the United States, is driven by the concept of "need for orientation" that was introduced in 1973 (McCombs, Shaw, Weaver, 2014). The scholars McCombs and Weaver (which invented the term) defined "need for orientation" as a combination of relevance and uncertainty. The term implies that when a public is uncertain, he will need an orientation by the media and this is extremely important in understanding the strength media can have in influencing opinions. Within their work, they find the following: low relevance leads to low "need for orientation"; high relevance with low level of uncertainty leads to moderate "need for orientation"; and, finally, high relevance with high uncertainty leads to a high level of "need for orientation". The correlation between relevance, uncertainty and the

"need for orientation" has been shown to be positive by several studies (conducted by Maxwell McCombs and Donald Shaw in the United States and Venezuela) (McCombs, Shaw, Weaver, 2014), and represents a crucial component of the McCombs and Shaw theory because it outlined a framework through which the media's impact on the public agenda can be understood (McCombs, Shaw, Weaver, 2014). The theory has two major assumptions. The first is that media discourse will shapes the way citizens and the politics perceive issues, based on the studies of Walter Lippmann. The second assumption is that there are two types of agendas: the media agenda and the public agenda. The first agenda deals with what the media opt to discuss, and is measured in terms of frequency of an issue appearing in a certain newspaper, through the analysis of the adjectives used to frame the issue, and (finally) through the mental models created by a particular topic (the mental models as described by M. McCombs and M. Shaw are the mental connections made by individuals between a certain issue and other personal experiences). The second agenda, also called "the focus of public attention" (McCombs, 2002, p.4), concentrates on everything that represents public attention. This may include public opinion / political agenda and is typically measured through polls (McCombs, 2002). The theory argues that these agendas are interrelated, and that the first agenda will impact the public agenda. The impact of the first agenda has been explored / proven by several studies, including the analysis of the American presidential elections in 1968. Indeed, the first study by Maxwell McCombs and Donald Shaw (conducted during the 1968 American elections) recorded a positive correlation of +.78 between issues portrayed by the media and the amount politicians insisted on one issue during their campaign for re-election. Moreover, similar research conducted outside of election periods exploring the link between public concern on international issues and the coverage of newspapers in The United Kingdom has yielded a correlation coefficient of +.54 (McCombs, 2002), and thus confirms that media coverage can modify public preference even in times when the status quo is *not* in flux.

The McCombs and Shaw agenda-setting theory is divided in three levels. The "objects" level, (which corresponds to public issues) comprises the first level of analysis. Maxwell McCombs define objects as "the things on which the attention of the media and the public are focused" (McCombs, 2002, p. 5). The theory thus first looks at the degree of correlation between "objects" on the media and the public agenda. In addition, the theory controls for "attributes". Attributes are captured by the

second level of analysis, and comprise of the study of the characteristics and qualifications that define the "object". The theory expects the "attributes" from a certain "object" to transpose *from* the media agenda *to* the public agenda in a fashion that mirrors the transposition of the "object". This particular level of analysis is linked to the image construction (image construction is the process of forming the perception of a certain issue through several methods including rhetoric) that mass media can use to influence the public opinion and political action. In 2012, a third level generally referred to as "the network level" has been added in a bid to integrate the findings of psychological studies. This third stage looks into the associations individuals make with a certain issue. For example, in the case of the environment, individuals that face environmental harm might associate environment with danger whereas other individuals might link this issue to a less powerful emotion (McCombs et al., 2014).

In addition to this, McCombs and Shaw make a difference between horizontal media and vertical media. The first type, "vertical media", is considered as being the mainstream media while the "horizontal media" incorporates specialized and niche media that is likely to incorporate a different discourse than "vertical media". Thus, the transfer of the media agenda to the public agenda is extremely subtle / insidious, and often takes place through the normalization of the discourse surrounding a certain issue (such as climate change) through mass media, but also through individual perceptions. On the topic of environmental issues at the "attributes" level of study, Maxwell McCombs and Donald Shaw conducted studies in Japan and the United States which confirmed the link between the local representation of environmental issues in newspapers and the perception the residents of the studied areas had of climate change. The scholars found an extremely high correlation of +.78 in Japan and +.71 in the United States between the representation of the environmental issues in the newspapers and the public opinion (McCombs, 2002).

The model outlining the need for orientation as departure of the framework is presented in *Figure 4* and the initial two-level analysis method, introduced by McCombs and Shaw and discussed within this section, can be found in *Figure 5* on the following page.
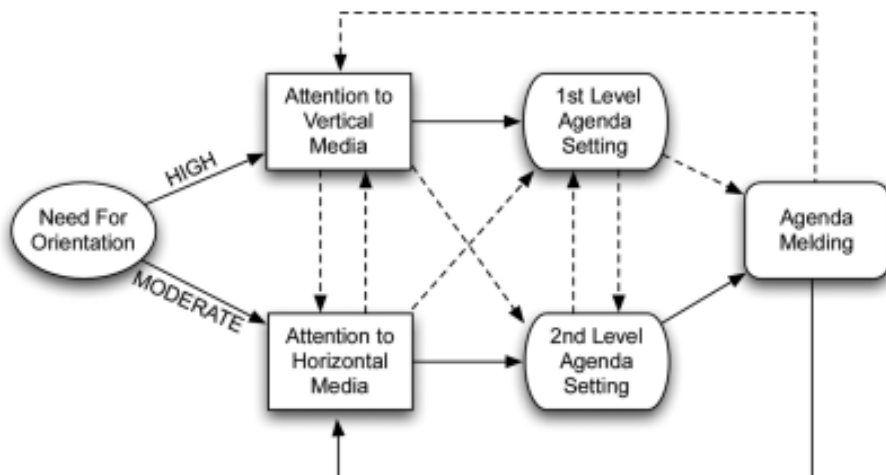
Figure 4. The need for orientation leading the McCombs and Shaw theory (McCombs et al., 2014)

Figure 5. The McCombs and Shaw agenda-setting theory model (McCombs, Shaw, 1997)

The agenda-setting theory studied throughout this paper, though widely applied, must be utilized in a way which pays due consideration to its operational limitations. The theory has been criticized for a.) The fact that the media agenda is not the only factor influencing the public agenda, and b.) Its assumption that the media introduces

a certain political issue: This assumption is problematic because several scholars claim that the media is only a tool to relay information (Hassenteufel, 2010). Taking into consideration the limitations of the theory, the principles introduced by the theory will be used to attempt to understand if the attributes characterizing climate change in the media where reflected in communications during COP15 and the 2014 bilateral agreement between the United States and China. Maxwell McCombs has identified four ways of linking the media agenda to the public agenda through the "Acapulco typology" that will serve as a guideline throughout the remainder of this thesis. The typology can be found in *Table 1* below.

	Measure of Public Salience	
	Aggregate data	Individual data
Focus of attention		
Entire agenda	Type I	Type II
	Competition	*Automaton*
		(null/abandoned)
Single item on agenda	Type III	Type IV
	Natural History	*Cognitive Portrait*

Table 1. The Acapulco Typology by Maxwell McCombs (McCombs, Ghanem, Lennon, Blood, Chen, Ban, 2013)

The first type of the Acapulco typology (also referred to as "competition") looks into the presence of a set of issues on the aggregate public agenda. The second type, "automaton", also concerns a set of issues, but utilizes a different unit of measure. Instead of focusing on the aggregate public agenda (as is the case with type one), type two measures public agenda at the individual level. Type three and type four both study a single issue. Type four ("natural history"), looks into the link between a single issue on the media agenda and the representation of this particular issue on the public agenda in a certain time-period. Type four differentiates itself from type two in that its "cognitive portrait" focuses on the salience of a single issue on the individual (type two, while also working at the individual level, measures response to a range of connected issues). The two types that focus on the individual, conduct research through interviews or laboratory experiments with individuals. As this thesis will look

into a single issue (namely: "climate change") and will focus on two distinct periods in time, the research framework adapted to this study is type three "natural history" (as described in the Acapulco typology) (McCombs et al., 2013). Therefore, the method of inquiry linked to this typology will be used throughout the research design.

In order to answer the research question: *"To what extent has the relation between media framing and the political agenda evolved in the United States and China from 2009 until 2015?",* the McCombs and Shaw theory presents the most appropriate base upon which to apply the punctuated equilibrium framework. As a matter of fact, media studies have shown the impact of media on the political sphere multiple times (McCombs, 2002); the selected theory will allow for the continuation of the exploration of the role of media in policymaking through two new cases by facilitating coordination with another agenda-setting theory such as the punctuated equilibrium theory, and will thus strengthen the link between the media and the political agenda through the concept of policy image.

C. The punctuated equilibrium theory by Frank Baumgartner and Bryan Jones

In 1993, Frank Baumgartner and Bryan Jones have created a public policy theory based on the model of biological evolution. Both scholars have discovered that the process surrounding public policy bears similarities to biological evolution in that it is characterized by periods of equilibrium-less, punctuated stability (Givel, 2010). The relevance of the theory that studies the causes of policy shift in times of policy stability has been verified by research into public policy surrounding the Tobacco industry in the United States over recent years (Givel, 2010). After the phenomenon of punctuation, Baumgartner and Jones have identified a stable pattern within a particular public policy as well as incrementalism until the following punctuation. In order to explain the process of policy stability as well as factors leading to policy change, the scholars identify "positive-feedback" and "negative-feedback" processes. The first type of feedback often leads to policy change or evolution whereas second ("negative-feedback") will increase the chances of incremental policy (Givel, 2010). The two scholars have looked into several factors that could influence policy entrepreneurs (Actors that have the power to influence policy creation). Interest groups are at the center of the punctuated equilibrium theory since they are seen as the

drivers of "positive-feedback" or "negative-feedback" that can create or end policy monopolies. When there is an opportunity for public policy change, Frank Baumgartner and Bryan Jones describe this momentum as "venue shopping"; interest groups as well as sub-systems take advantage of this phenomenon to achieve their goals. According to Frank Baumgartner and Bryan Jones, interest groups or policy subsystems will achieve their goal through the management of information. Indeed, information processing is at the center of the study of the two scholars and is the key to policy stability or punctuation (Ness, 2010).

Therefore, within the punctuated equilibrium framework, "bounded rationality" and "policy image" are crucial concepts to the theory. As the punctuated equilibrium framework has demonstrated, public policy attention is highly impacted by "bounded rationality," the natural selection of information due to time and interest limits at stake by policy entrepreneurs. The "policy image" is also essential to understand since (as Frank Baumgartner and Bryan Jones proved in their work) not only the understanding of an issue by the policy entrepreneur but also the public's opinion of it will play an important role in determining the priorities on the political agenda (Ness, 2010). This relates to the idea of "prioritization of information" that drives the punctuated equilibrium theory in coordination with the belief that information can be a precious tool within political agenda-setting. Based on the theory, a figure of the punctuated equilibrium framework can be found below in *Figure 6*.
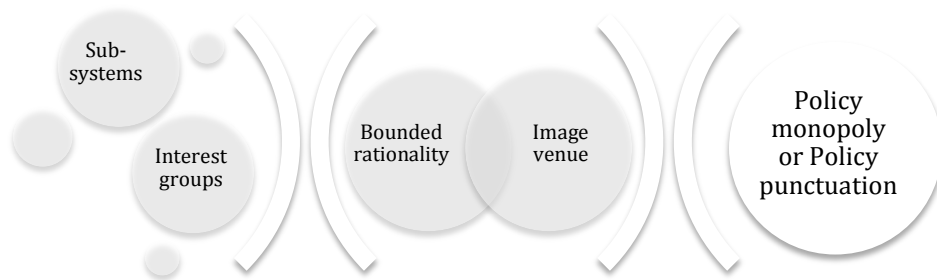

Figure 6. Visualization of the punctuated equilibrium theory by Frank Baumgartner and Bryan Jones

Throughout this thesis, the punctuated equilibrium framework as described previously will be used in order to link the public agenda to the political agenda and

strengthen the relation between the media and political agenda-setting. The McCombs and Shaw theory is the most reliable framework to use to understand the relation between the media and the public agenda while the Baumgartner and Jones theory (due to its greater elaboration) offers venues through which to understand the construction of a policy image as well as its impact on political agenda-setting.

Therefore, through the initial agenda-setting theory by Maxwell McCombs and Donald Shaw, the link between the media and the public agenda can be assessed and subsequently applied to describe the image of climate change in the media and public agenda of the United States and China. On the basis of these findings, the punctuated equilibrium theory can be tested to conclude whether a change in policy image is linked to a change in policy or not. If the results of the study of the media agenda and the public agenda do not correspond with a change in policy image, the hypothesis that a policy image will influence political agenda-setting if there is a policy monopoly or punctuation can be considered null, and other factors of policy change (such as institutional sub-systems) can be explored.

D. The use of discourse analysis

Maxwell McCombs and Donald Shaw have used discourse analysis to assess the relationship between the media and the public agenda within their cases. This technique has been applied to understand, through a constructivist approach, the real meaning of language (and variations thereof) used to encourage certain reactions in the audience or readership. This type of analysis is also referred to as analysis "beyond the language". Discourse analysis can be conducted through several techniques depending on the context in which the source can be found: It may be conducted by writ of script or orally within (depending on the field the discourse belongs to) both political and media-based spheres (Gee, 2014). Until now, several "reading grids" have been proposed by scholars to analyse discourse in the most appropriate manner. The main divide in technique of analysis derives from the difference between the choice to look into the content of the language and the choice to look into the structure of sentences (close to semantic studies) (Gee, 2014). Amélie Seignour, a scholar specialized in communications and discourse analysis, distinguishes three sub-categories in the content and structure analysis domains. The first possible "reading grid'' of discourse written or orally can be done through the

study of enunciative indicators that includes linguistic unities as well as adverbs (i.e.: expression of the degree of speaker adhesion to the content state) (Seignou, 2011). Other scholars prefer using referential indicators (including the analysis of semantic fields and the nature of arguments presented) (Seignour, 2011). Finally, a third option consists in looking at organizational indicators such as the connectors used as well as the thematic progression of the discourse in order to reveal a persuasive logic behind the language.

The academic literature on the analysis tool succeeds in detailing the approaches available in order to use discourse analysis appropriately. Nonetheless, cases illustrating the presented paradigm are lacking. Indeed, the scholars specialized in this field often remain extremely focused on theory which underlies their work. The academic field on discourse analysis would benefit from cases applying the different "reading grids" identified to real-life scenarios. Unfortunately, discourse analysis remains undermined by a constant critic of the field: the often non-avoidable subjectivity of the analysis (Gee, 2014). As a matter of fact, the major criticism of this study approach derives from its subjective perception of the subject. Scholars studying semantics have attempted to limit subjectivity through the creation of objective algorithms that can apply to several cases (Van Dijk, 1985). However, these algorithms limit themselves to the examination of syntax that incorporates only one possible angle of study within the discourse. As a result, the need to develop methods that minimize the subjectivity of results is likely to present within the field of discourse analysis in the near future.

E. The application of the selected agenda-setting theories to the case of climate change in the United States and China

Taking McCombs and Shaw's measure of public salience framework and the punctuated equilibrium agenda-setting theory (as well as their studies) into account, this paper will attempt to validate three hypotheses. The first hypothesis derives directly from the McCombs and Shaw theory and will focus on the "attributes" level of the theory. Moreover, the link between the media agenda and the political agenda through the importance of policy image will be established thanks to the Baumgartner and Jones theory. The second hypothesis follows the remarks made earlier throughout the essay stating that the McCombs and Shaw agenda-setting theory has only been

tested in countries with a high index of press freedom. Finally, the third hypothesis has been though in terms of construction of policy image as seen in the Baumgartner and Jones theory. As a result, the following hypotheses are posited for validation:

Hypothesis 1: If the attributes of climate change can be found on the media agenda, they will also be found on the political agenda in both the United States and China, according to the McCombs and Shaw theory.

Hypothesis 2: If countries have a different freedom of press index, the relation between the media and the political agenda will be different within these countries.

Hypothesis 3: If there is a construction of a policy problem, this phenomenon will be related to the political agenda-setting, in the United States and China.

Through the validation or refutation of the three hypotheses presented, this paper aims to achieve several goals. First, it is hoped that a better understanding of the causes leading to the appearance of climate change on the political agenda in the United States and China can be attained. Indeed, through the answer to the first and third hypothesis, this paper will be able to confirm if the media agenda has a role on the political agenda for the case of climate change in the United States in China. As a matter of fact, the focus on the attributes of climate change will be able to assess if the international environmental discourse by the American and Chinese politicians has been influenced by the media agenda and if there has been an evolution between 2009 and 2015. Such a finding would represent a crucial contribution to the academic understanding of mechanisms that underlie public policy shifts. In addition to this, the answer to the first hypothesis is intended to add to the literature on the selected agenda-setting theories through a.) The introduction of new case studies that will establish a positive or negative link between the attributes of climate change in the media agenda and the public agenda and b.) The analysis of the evolution of a policy image and if there is a correlation with political agenda-setting.

The validation or refutation of the second hypothesis will, much like the answer to the first hypothesis, contribute to the academic literature by adding a dimension of complexity to the McCombs and Shaw theory if a difference in the relation between the media agenda and the political agenda in a country with a high freedom of press

index and a country with a low freedom of press index can be assessed. Moreover, the investigation made to find a difference between countries with a different freedom of press score would have a high societal relevance by acquiring understanding on the relation between the media agenda and the political agenda in countries with a low freedom of press index such as China. Finally, the third hypothesis aims at completing the research by assessing (by utilizing the two first hypotheses) if the construction of the policy problem can be linked to political agenda-setting to obtain a better understanding of the phenomenon as a whole. This thesis thus pursues several objectives that are academically and societally relevant in different fields through the testing of the three previously detailed hypotheses.

8. Research Design

The research design has been constructed in order to answer the following question:

"Which method will be used to investigate the environmental policy shift in the United States and China, in the light of the chosen theories?''

In order to provide a substantial answer to this question, first the most common available research methods will be discussed; the selected study design will be presented afterwards; the chosen framework of research will be detailed, and (finally) the limitations of the study will be explored to conduct a rigorous study further on.

A. Available research methods

Within the qualitative approach of study, several research methods can be explored. According to the academic literature, the major qualitative research designs that can be found are the following: the ethnography method, the narrative or the historical research, the phenomenological study, the grounded theory, and the case study (Creswell, 2014). The first research design strategy is linked to anthropology and focuses on the study of one defined group or population. The research is done through participation in the group, observation and interviews. For the narrative or historical design, the research is based on individual experience and personal documents. The phenomenological approach aims at understanding what a group of people have lived through / underwent through the conduction of a series of interviews. On the other hand, the grounded theory is linked to sociology and is a design that permits the creation of a theory coming from observations made on the field through interviews and coding of information. Finally, the final typical research design of the qualitative approach named thee case study permits the obtaining of an in-depth analysis of a certain aspect of an issue through mixed-methods of research such as interviews, observations and the gathering of documents (Creswell, 2014).

In addition to these most used designs, other more specific designs such as comparative methods of analysis and discourse analysis can be applied within qualitative analysis. In order to answer the research question of this thesis, several

designs have been eliminated. The ethnography method has not been selected for this thesis since this paper does not aim to study a specific group. The narrative design has been discarded as well since this approach focuses on individual experience. As for the ethnography design, the phenomenological design has been excluded since this approach focuses on a particular group of study, and aims at understanding a specific experience. Finally, the grounded theory design has been considered since this paper intends to introduce a different agenda-setting approach based on a.) The strengths of the McCombs and Shaw theory, and b.) The positive aspects of the Baumgartner and Jones framework. This new approach will be created through the discourse analysis of the selected documents and the comparison of the two case studies after analysis. Nonetheless, the grounded theory approach proposes a design in which an absolutely new theory will be created through field study. As this is not the case for this thesis, this approach has been eliminated as well.

B. The multiple-case study research design

In order to answer the research question: *"To what extent has the relation between media framing and the political agenda evolved in the United States and China from 2009 until 2015?",* this thesis will employ a major research design from the qualitative approach (namely the case study design). Indeed, from the most common research designs that can be found within the academic literature, the case study strategy seems the most appropriate since the thesis aims at understanding a particular issue in two cases. Moreover, the United States and China correspond to the requirements necessary to choose the case study approach such as: the aim of the study to answer a "how" question, the impossibility to manipulate the behavior of the objects of the study and finally the desire to explore "contextual conditions" that are seen as relevant to the studied phenomenon (Baxter, Jack, 2008).

More precisely, the "multiple-case studies design" that "enables the researcher to explore differences within and between cases" (Baxter, Jack, 2008, p.548) has been chosen as study design. Throughout this approach, the differences and/or similarities in the relation between the media agenda and the political agenda in the United States and China with the study of climate change can be assessed. Moreover, this thesis also aims at presenting an "explanatory case" that is "seeking to answer a question that sought to explain the presumed causal links in real-life interventions that are too

complex for the survey or experimental strategies" (Baxter, Jack, 2008, p.547). Thus, the final objective of the thesis will be to obtain explanations on environmental policy change in two crucial cases for the evolution of the protection of the environment worldwide through a "multiple-case studies" design with the use of comparative research methods, that will be done conducted in accordance with theories presented by McCombs and Shaw & Baumgartner and Jones.

In addition to the use of the case-study design that is extremely popular within the academic literature, two methods will be used in order to fulfill the goals of this study: The discourse analysis design and the comparative research method will also be applied in this paper as tools of analysis within the broader "case-study design" framework. As a matter of fact, discourse analysis is at the root of the coding that has been crafted for the analysis and the basics of comparative methods such as selecting comparable cases and focusing on key variables will be reminded throughout the entire thesis since the final aim of this paper is to compare two particular cases (Lijphart, 1971).

The choice of the case studies, namely the United States and China, has been thought as such: The selected cases need to be important stakeholders in the protection of the environment and the countries need to have a different type of political regime in order to investigate the relation between media and politics in opposed political regime for an interesting study. After studying the striking events in the fight for climate change that took place this last century such as the 2014 bilateral agreement between the United States and China and regarding the case profile this study was aiming at, the United States and China seemed to be the perfect cases to investigate. Indeed, the political regimes of both countries are extremely different and the freedom of press is high in one case but low in the other case, which is interesting for the study but also, the United States and China are both the largest polluters worldwide in addition to being super powers politically and economically (Sunstein, 2007). Therefore, choosing a case that matters for climate change would give a higher societal relevance than selecting a country having no power in climate change discussions. Finally, these two cases have been selected because they both suffer heavily from the effects of climate change or the deterioration of the environment and it is therefore interesting to study the discourse on climate change within these countries to observe if there is any trend change that would relieve the populations within these countries suffering from environmental damage (Li, Takahashi, Suzuki,

Kaiser, 2011). Despite being extremely different countries, both countries have had a similar stance in the negotiations on climate change, have both been affected by the effects of this phenomenon and finally both have changed their position of greenhouse gas emissions during the 2014 bilateral agreement (Sunstein, 2007). In a further case study on climate change discourse evolution and the relation to the political sphere, it might be interesting to study influential non-state actors in climate change negotiations and their use of discourse on climate change.

C. Framework of research

As the qualitative method of study requires, the data collection for the research will be completed through several mediums, including the study of traditional sources used in qualitative data collection such as documents, interviews and the analysis of visual materials (Creswell, 2014). More precisely, public documents as type of documents will be studied in the form of newspapers in addition to the academic literature. The interviews that have been conducted to construct the theoretical approach of the thesis were obtained through personal (email-based) contact with Maxwell McCombs and Franck Baumgartner, and have facilitated the finalization of this paper's study design. Finally, audio-visual material (In the form of political speeches that have been performed from 1 April 2009 until 1 April 2010 and from 1 April 2014 until 1 April 2015 by political representatives of the United States and China) will also be used.

The elements that will be gathered within the data collection will be used for different purposes. As the interviews have been used for theoretical insight and the construction of the design, the academic literature has been used to understand the already existing point of views on the factors that led to an environmental policy shift as well as the evolution of discourse on climate change. The academic literature is additionally used as a tool for understanding the attitudes of the United States and China at COP15 and the environmental policy history of both countries. The public documents as well as the audio-visual material will be analysed through a discourse analysis method. The political speeches as well as governmental communications will be studied through a.) The application of the McCombs and Shaw theory, b.) The discourse analysis strategy and c.) The descriptive adjectives in the selected newspaper articles.

This method of analysis has been conceived of as follows:

1. In accordance with the "attributes" level of the McCombs and Shaw theory described earlier in the paper, only descriptive adjectives will be studied to observe the evolution of the topic of climate change in the media / political agendas (This type of adjective fits the best in the analysis of "attributes") (McCombs, 2002).

2. The research will assume that the media agenda is not the direct cause of the appearance of the public issue on the political agenda; as it aims to explore the link between how climate change and environmental problems are portrayed throughout the media in the two countries (and how this might have affected the public and, ultimately, the political agendas). Moreover, the study of the second level of the theory has shown the best positive results throughout the studies made (McCombs et al., 2014), and therefore represents the most relevant approach in terms of analysis method. The relevance of the adjective analysis as indicators of the image of climate change in the media and the public agenda was confirmed through the completion of an email-based interview with Maxwell McCombs.

3. The theory of discourse analysis has been introduced in order to analyse the media and political communication analysis on solid theoretical basis. The discourse analysis will be conducted through a self-crafted coding adapted to the aim of the thesis, based on lexical field and semantic academic studies.

   As the focus of the study will be the "attributes" of climate change in the form of descriptive adjectives, a coding based on a classification of descriptive adjectives has been created that can be found on the following page within the *Table 2* and *Figure 7*.

Level 1	Level 2	Level 3
• Lexical Field of the adjective: - ''Danger''/ - ''Uncertainty''/ - ''Opportunity''/ - ''Constraint''.	• Nature of the adjective: - ''Intentional''/ - ''Extensional''.	• Strength of the adjective: - Total/ - Partial.

Table 2. The levels of coding for the descriptive adjective analysis
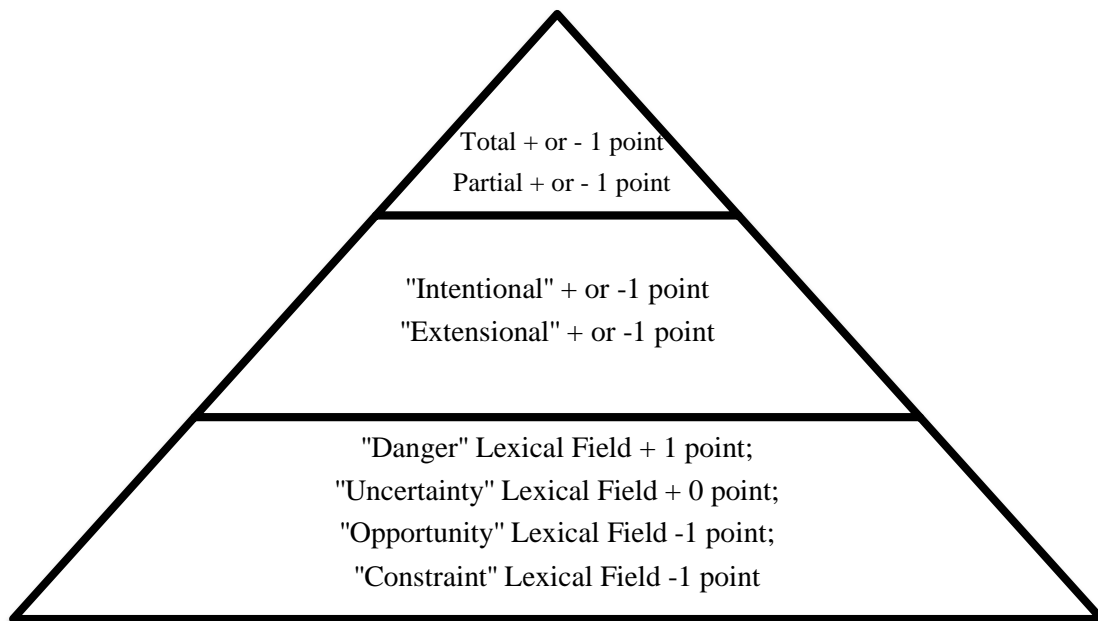
Figure 7. The distribution of points at the three levels of the coding

As can be seen in the previous table and figure, the analysis of attributive adjectives is operationalized through three levels of study. An adjective can score a maximum of 3 points and a minimum of minus 3 points. The lexical field will be the starting point; the assignment to the second / third level will depend on the lexical field the adjective belong to. For instance, if the adjective belongs to the ''Danger'' lexical field, occurrence of the adjective ''intentional'' will reduce the final score by one. Conversely, the final score is increased by one point when the adjective

''extensional'' is recorded. Within the same lexical field, the "total" nature of the adjective will award one point and while the eventual "partial" character of the adjective will deduce a point. Conversely, if the adjective belongs to the "Uncertainty", the "Opportunity" or the "Constraint" lexical field, the "intentional" character will add a point whereas the extensional type will deduct a point. Finally, in these three lexical fields, if the adjective is "total" it will lose a point and if it is "partial", it will add a point. This coding has been designed to express the semantic of every concerned adjective at the best from a scale from +3 to -3 in terms of qualification of the problems related to or created by climate change.

The reasoning supporting the scoring scheme outlined in **level one** of *figure 7* is as follows. First, previously conducted lexical field studies presented by James Painter (an influential scholar in the research on climate change discourse) have permitted the classification of attributive adjectives according to their meaning in four lexical field categories which are often encountered in the literature surrounding climate change (Painter, 2013). The categories yielded by this research – danger, uncertainty, opportunity, and constraint – form the basis of the lexical field presented in *figure 7*. Because the lexical fields of **danger** and **fear** have been shown to be strong predictors of changes in climate policy (O'Neill, Nicholson-Cole, 2009), this study credits articles in which the "danger" adjective occurs with a positive (+1) score, higher scores on the -3 - +3 spectrum indicate a higher expected likelihood that the article will foster public action / policy change. On the other hand, the lexical field of uncertainty does not add a point since it is less alarming then the danger category but does not deduce one point The opportunity or constraint lexical fields do deduce one point since it is believed that discussing in this way about climate change, might affect its perception by the public (O'Neill, Nicholson-Cole, 2009).

For the **second level** of analysis, the broader categories of ''intentional'' and "extensional" adjectives have been defined. These categorizations represent the operationalized aggregation of the work of several scholars. Whereas level one of the lexical field based itself on lexical field studies, levels 2 and 3 base themselves (amongst other) on semantic studies (and, more specifically, the study of adjectives). The first study of adjective classification that will be used as basis for this paper (published by Ivonne and Wim Peters) identifies three categories of adjective features: morphological, syntactic, and semantic. Though the semantic study is the only one of these categories that contributes to this lexicon, it is worthwhile to outline

the morphological and syntactic: The morphological class is divided into two categories. The first type reflects the degree of intensity expressed by adjectives and the second type qualifies whether adjectives are derived from nouns or from verbs. The syntactic category of analysis is divided into three categories looking into the place of the adjective in the sentence. The semantic category has been constructed according to the work of Chierchia and McConnell-Ginet and the studies of Quirk, Greenbaum, Leech and Svartvik. The first two scholars have proposed a semantic divide of adjectives in three types; namely: "intersective", "subsective", and "nonpredicating".

- The first type ("intersective") describes the noun directly, qualifies the noun and has, a high probability of modifying the meaning of the noun.
- The "subsective" category can be independent from the noun it qualifies; its net effect is often subject to the interpretation of the reader / listener.
- The "nonpredicating" category denotes "functions from properties to properties" (Peters, Peters, 2000, p.3), which means that this type of adjective is used to give information about a noun other than the subject.

These three determined types of adjectives can be included in two broader categories called "intentional" and "extensional" adjectives that will be used as the second level of analysis.

- The "intentional" adjectives incorporate "nonpredicating" adjectives that can be temporal, modal, emotive, manner, object-related and emphasizer adjectives (Peters, Peters, 2000).
- The "extensional" adjectives are mainly constituted of the "intersective" and "subsective" adjectives and are divided in the following categories: psychological property, social property, physical property, temporal property, intensifying property and relational property.

These types of adjectives can be found in *Figure 8* on the following page.
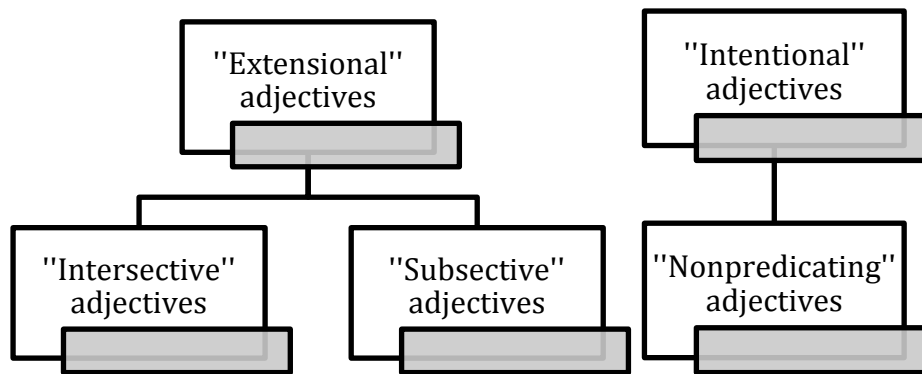
Figure 8. Adjective qualification according to Chierchia and McConnell-Ginet and Ivonne and Wim Peters (Peters, Peters, 2000)

The **third level** of the lexical field presented in *figure 5* derives (initially) from works presented by Quirk, Greenbaum, Leech and Svartvik. These studies have identified three types of adjectives in a semantic analysis defined as the following: stative/dynamic, gradable/non-gradable and inherent/non-inherent. Stative adjectives are derived from nouns and are stable in time whereas dynamic adjectives change over time, which will have a different impact on the reader or listener. Within the second category, adjectives can be gradable or non-gradable. Gradable adjectives are marked by graduation. On the other hand, non-gradable adjectives will be adjectives of provenance for example as described by the authors. Finally, inherent/non-inherent adjectives reflect whether the adjective describes the noun directly or not, (as in the "nonpredicating'' category of Chierchia and McConnell-Ginet) (Peters, Peters, 2000). The operationalization of graduation is accomplished through the consultation of the semantic adjective analysis by Carmen Rotstein and Yoad Winter. The study claims that there are total as well as partial adjectives. Total adjectives have a strong power since they define the noun entirely and in a strong manner. However, the partial adjectives are adjectives that are completed by another adjective or adverb that nuances the meaning of the adjective (Rotstein, Winter, 2004). As an example, the total adjective would be used as following: "The dangerous storm" and the partial adjective would be "the slightly dangerous storm''. This particular study has been chosen since it proposes the most precise way to look into the strength of an adjective (Kennedy, 1999).

The research method presented here will be applied to a selected number of sources. For the sake of feasibility and measurability, 264 articles included in six newspapers have been selected in addition to 28 political speeches. Moreover, only

sources translated in English have been selected; Chinese sources that are originally in Chinese will be studied in English (It is important to note that most 'major' Chinese newspapers have an English version. Reference News, the most read Chinese newspaper in print in China, represents an exception to this rule). However, choosing the most read online newspapers seems relevant since this study will limit itself to online news and because larger readership will often imply larger impact so larger changes of public pressure for policy shift. Therefore, for the study of the representation of the topic of climate change in Chinese newspapers, the three following online newspapers have been selected according to their popularity: People's Daily, Global Times, and China Daily. Operationalization of the United States' case is similarly achieved through the study of the three largest online newspapers in the country in terms of readership. The three selected newspapers for the United States are as follows: The New York Times, The Wall Street Journal and The Washington Post. The differences in political view between the newspapers in The United States and the relation between the media and the government in China will be discussed within the final chapter and the selection on the political views of the newspapers has been excluded since this paper aims at studying the global evolution of discourse. Moreover, the appreciation of the views of a newspaper is highly subjective. To ensure a fair test, the time-periods subjected to investigation are uniform across the six previously listed newspapers. A first basis year will be from 1 April 2009 until 1 April 2010, year of the COP15, and the other basis year will start on 1 April 2014 until 1 April 2015, year of the 2014 bilateral climate change agreement. This choice of time frame supports this thesis' research question because the proposed environmental policy shift is believed to have taken place between 2009 and 2014 in both countries. Study periods of one year have been chosen to facilitate this thesis' aim of analysing the state of discourse on climate change around COP15 and the 2014 agreement.

The archives of the newspapers, available online, will be queries with the key phrase ''climate change''; all returned articles will subsequently be scored according to the lexical field outlined in *Figure 5*. It is expected that the gross "count" of articles that contain the phrase "climate change" will vary by newspaper. While this approach is associated with the consequence validity of results will vary between news outlets, it is important to note that significant differences in number of articles published is a statistic worth exploring in-and-of itself. The speech analysis will be done during the

same time period, but will only contain the major communications on the topic of climate change issued by the United States and China respectively. Within this study's research period, this parameter yields a total of seven speeches per country annually. As the occurrence of speeches which discuss *only* the topic of climate change are rare over these time periods, this sample is viewed as being representative of the political discourse surrounding climate change. A comparison of the political speeches or political communications during the corresponding periods will subsequently be conducted.

It is important to note that (due to operational constraints) the conduct of an experiment analysing (for example) twitter posts in the United States and China on climate change on the same basis as the other sources was not feasible. Indeed, of the application of a similar *modus operandi* vis-à-vis analysis would require the selection of twitter accounts according to number of followers. As the most popular twitter accounts in the United States are composed by celebrities that do not discuss climate change and in China the twitter posts are in Chinese, this would make the analysis non relevant. Nonetheless, the difference between traditional and social media will be referenced / presented for discussion in this paper's conclusion.

D. Limitations of the study

Several limitations coming from the choice of the qualitative approach as well as the case-study design and the discourse analysis technique need to be accounted for. First, due to the small scope of study through the "case study'' design and the choice of obtaining an in-depth knowledge of the presence of climate change on the media and the political agenda in the United States and China focusing on 2009/2010 and 2014/2015, the generalizability of the findings will be difficult to assess. Nonetheless, the validation or refutation of hypothesis 2 on the difference between countries with a high freedom of press index and a low freedom of press index as well as hypothesis 3 dealing with the construction of a policy problem serves to add a more universal value to the thesis since these two hypothesis aspire at understanding a more general difference with a broader scope than the two specific chosen cases.

The results of this thesis may also be able to observe a similarity in adjectives used on the media agenda and the political agenda and (as a result of this) may be able to attest a relationship between the media agenda and the political agenda. The

subjectivity inherent to assessing such topics through the study of adjectives is acknowledged. Indeed, an experiment not using an alternate method of adjective analysis (one utilizing a model which explores the syntax of the sentence / a study of verbs, for example) may yield results that differ from the ones presented within this thesis (Del Castillo, 1997). Discourse analysis remains a highly subjective research strategy despite the attempt to create an as objective coding system as possible through the leveraging of academic adjective classifications. Nevertheless, every field of study is characterized by a paradigm that changes over time and thus the academic classification of adjectives has been influenced by the actual paradigm (Verschueren, 1981).

Finally, the selection of only three newspapers online per country combined with the reliance on particular speeches adds to the bias of the study since the results have been influenced by the prior selection of the research design and sample of selected sources. It should be noted, however, that the researcher has attempted to select the newspapers in an objective manner, and that the selected political speeches represent the most popular communications of political officials on the topic of climate change in the studied time period. Finally, referring once again to the selection of the sources, the translation from Chinese to English in the chosen newspapers adds a problem of validity to the thesis since the translation in English including the adjectives might be different from the original Chinese version and the image of climate change in China could have been influenced by the personal perspective of the translators on the use of adjectives. However, despite these unavoidable study limitations linked to the choice of research design, this thesis aspires to contribute to the academic literature and the understanding of the discussed issues through an innovative research approach.

9. <u>Analysis</u>

In order to discuss the findings within the following chapter, the analysis needs to be explained first in a descriptive manner for the reader to follow the steps of the study that will lead to a discussion. According to the method explained throughout the previous chapters, six newspapers have been analysed. The yielded results per country and basis year for the media as well as for the political speech are presented in *Figures 9* and *10*:
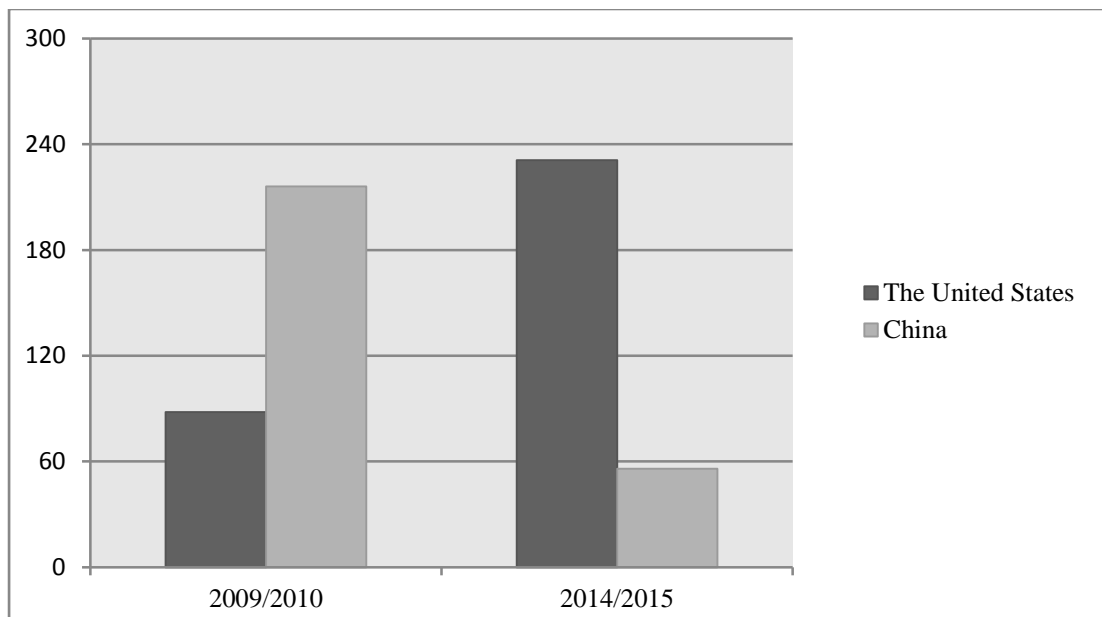
Figure 9. The evolution of discourse on climate change in the United States and China in the media in 2009/2010 and 2014/2015
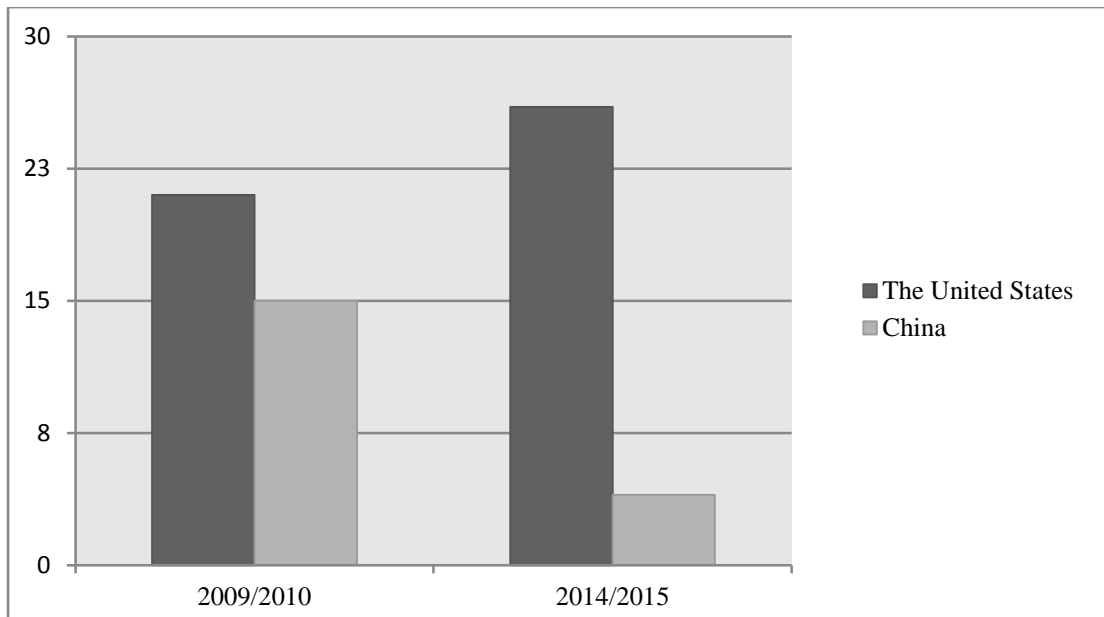
Figure 10. The evolution of discourse on climate change in the United States and China within the political sphere in 2009/2010 and 2014/2015

In order to obtain the presented results, the score of each article, obtained through giving a grade to the adjectives of the article, have been summed to yield a result on a per-country and per-basis-year basis. The analysis of the political speeches has been conducted through a similar process. The detail of the analysis of each article and political speech can be found within the appendices. In addition to the country analysis, a result has been found per newspaper that will be discussed within the following section and can be found in *Figure 11*, *Figure 12*, *Figure 13* for the American newspapers and in *Figure 14*, *Figure 15* and *Figure 16* for the Chinese newspapers.
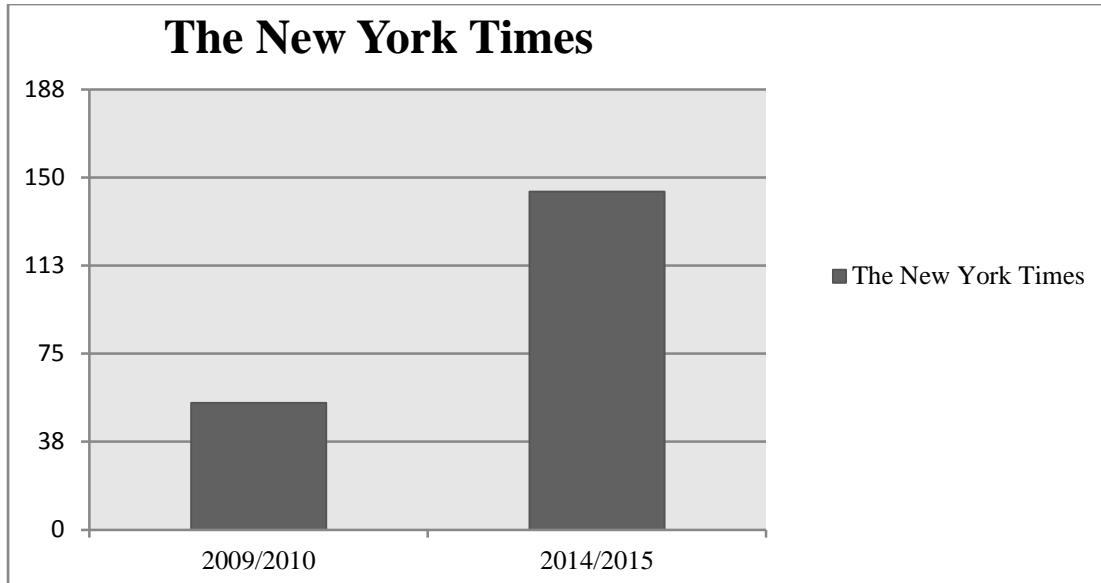
Figure 11. Grade evolution of total articles for The New York Times in 2009/2010 and 2014/2015
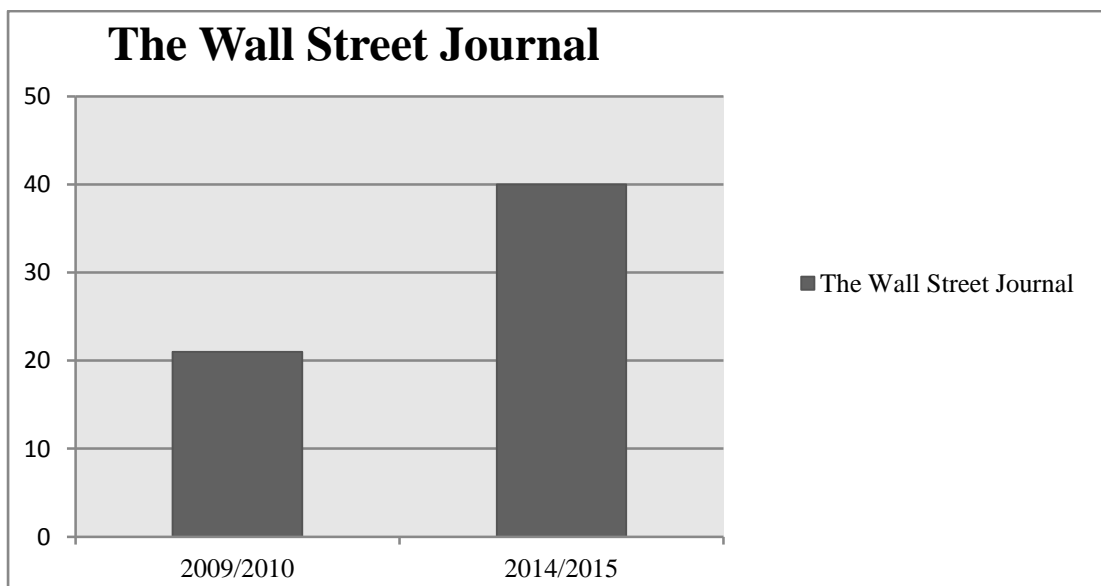
Figure 12. Grade evolution of total articles for The Wall Street Journal in 2009/2010 and 2014/2015
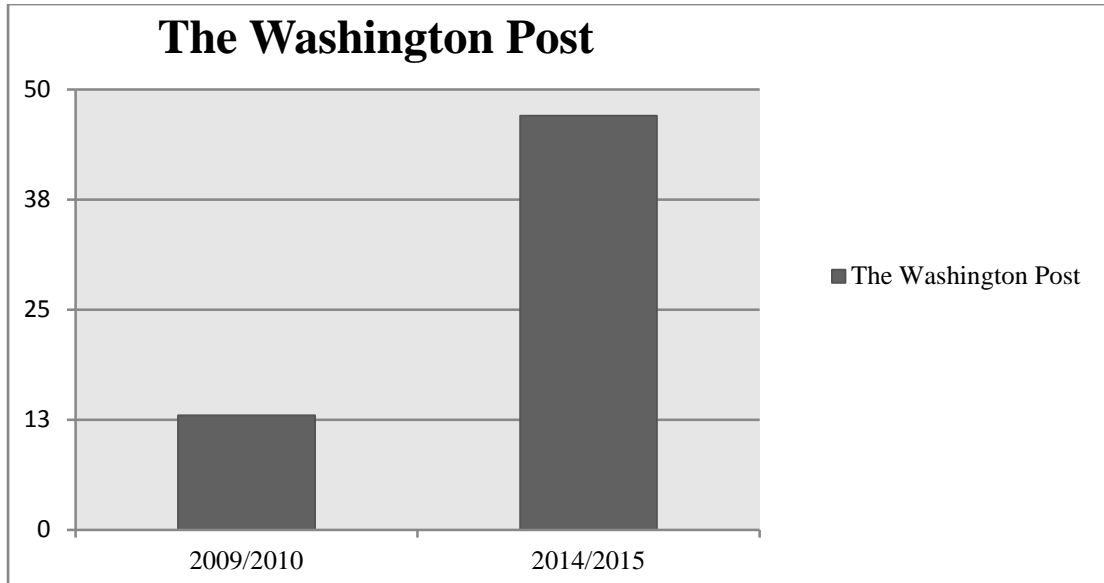
Figure 13. Grade evolution of total articles for The Washington Post in 2009/2010 and 2014/2015
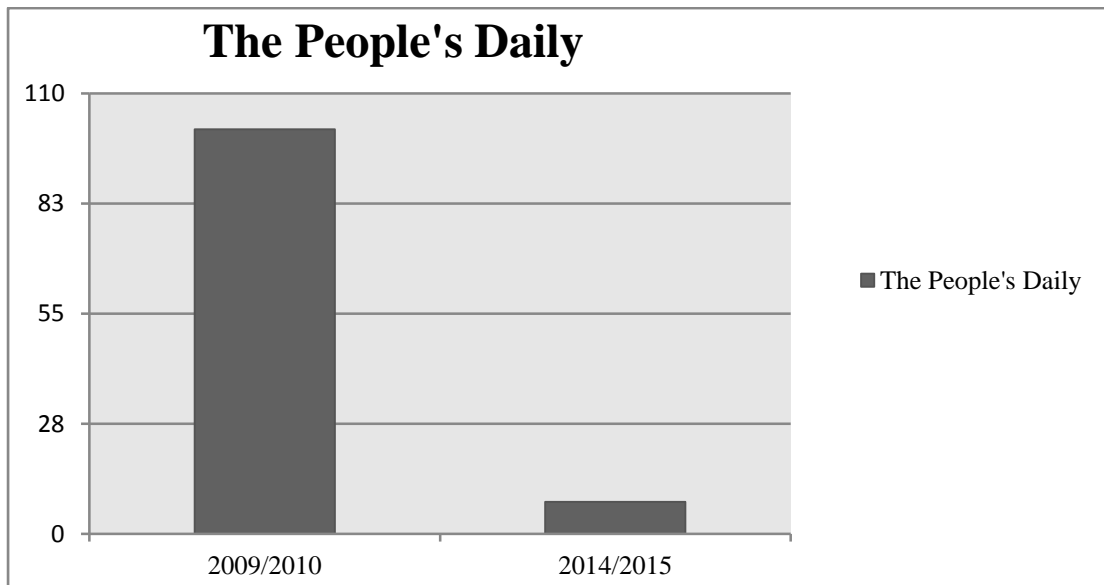
Figure 14. Grade evolution of total articles for The People's Daily in 2009/2010 and 2014/2015
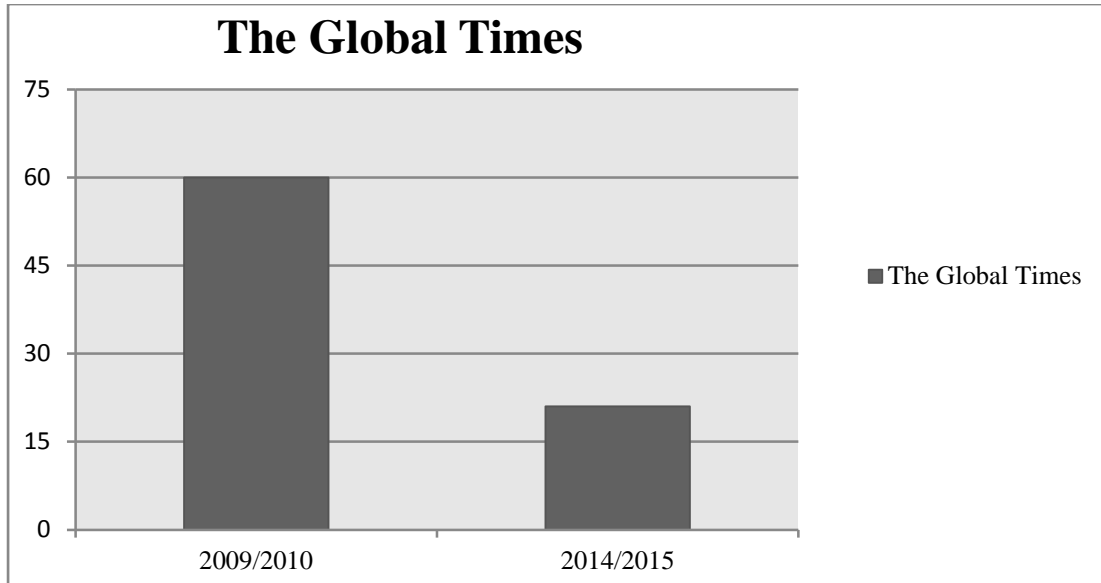
Figure 15. Grade evolution of total articles for The Global Times in 2009/2010 and 2014/2015
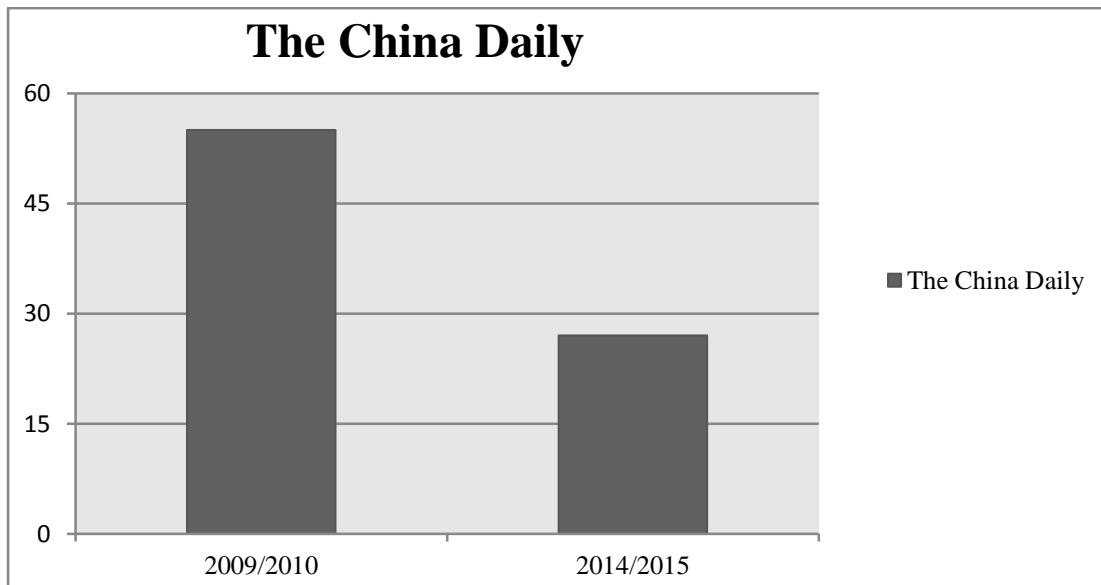
Figure 16. Grade evolution of total articles for The China Daily in 2009/2010 and 2014/2015

Within the previously exposed results, there is a striking difference within the media study between countries. In addition results differ significantly by newspaper, especially in the United States. As a matter of fact, The New York Times has a much higher score and alarming discourse on the environment than the Wall Street Journal and the Washington Post. Moreover, The People's Daily has a higher grade than The Global Times as well as The China Daily. Nonetheless, in both cases, the trend within the country remains the same. The power of the discourse on climate change

increased in the United States over time and decreased in China between 2009 and 2015. Regarding the political speeches, the difference between country and among the years is less singular then for the newspaper analysis. Indeed, the differences are small but the national trend within the political speeches still correlated with the trends observed in the analysed newspapers. For the case of the United States, the strength of the discourse increased slightly between 2009 and 2015; In China, the power of the discourse decreased more significantly. Moreover, the most common analysed adjectives can be found below within *Table 3* that compares the type of the adjectives within the media to the political speeches.

	serious	severe major	irreversible	urgent/ imminent	vulnerable	catastrophic/ extreme
Media in the United States in 2009/2010	4	1	0	0	4	6
Media in the United States in 2014/2015	11	11	4	2	3	28
Media in China in 2009/2010	9	15	3	5	4	21
Media in China in 2014/2015	4	6	5	1	2	12
Political speeches from the United States in 2009/2010	1	0	2	1	1	0
Political speeches from the United States in 2014/2015	1	2	0	2	1	2
Political speeches from China in 2009/2010	0	3	0	1	0	0
Political speeches from China in 2014/2015	0	1	0	0	0	0

Table 3. The most employed adjectives to discuss climate change within the studied newspapers and the analysed political speeches in the United States and China in 2009/2010 as well as 2014/2015

As can be seen within *Table 3*, the correlation between the type of adjective used by the newspaper articles and the political speeches is limited. However, similar adjectives can be found within both but the intensity does not seem to be related to each other. The relationship between the articles and the speeches can thus only be assessed through the score of the articles; it cannot be assessed through the frequency of use of specific adjectives, as there are subject to the personal taste of the speaker performing a speech / the writing style of a journalist. Despite the fact that (as several scholars have pointed out) the lexical fields in climate discourse remain remarkably constant throughout the analysis, the relationship between the types of adjectives

presented in *Table 3* is not clear in terms of gross count. The lexical fields, which impacted the score of each analysed document, also exhibit a more affirmed but still blurry relationship. The correspondence between the lexical fields can be found in *Table 4* underneath.

	Danger Lexical field	Uncertainty Lexical field	Constraint Lexical Field	Opportunity Lexical Field
Media in the United States in 2009/2010	62	9	8	2
Media in the United States in 2014/2015	168	7	2	0
Media in China in 2009/2010	179	12	6	0
Media in China in 2014/2015	56	2	2	2
Political speeches from the United States in 2009/2010	15	1	2	0
Political speeches from the United States in 2014/2015	16	1	0	0
Political speeches from China in 2009/2010	8	0	2	0
Political speeches from China in 2014/2015	3	1	0	0

Table 4. The correspondence between the lexical fields in the studied newspapers and the analysed political speeches in the United States and China in 2009/2010 as well as 2014/2015

As for the correspondence between the types of adjectives, the relation between the lexical fields of the political speeches and the newspaper articles is difficult to assess. For the lexical field of "danger", within American newspapers the increase in the use of words related to danger is important but for the political speeches, the result is less striking. For the case of China, within the political speeches and the articles, the increase of the use of words related to danger exhibits a weak (but positive) correlation. Concerning the "uncertainty" lexical field, the results are limited for the

case of the United States; in the case of China, the political speech trend opposes the newspapers' patterns between 2009 and 2015. The lexical field of "constraint" is the only lexical field in which the correspondence is clear and easy to assess since in both cases, the trend evolves in a uniform manner. Finally, the "opportunity" lexical field is not used extensively enough to establish a link between articles and political speeches. Nonetheless, this non-correspondence for the types of adjectives as well as the lexical field is an interesting study issue and will be explored within the discussion & analysis section of this thesis.

10. <u>Discussion of Findings</u>

The findings appear to be significant. Indeed, a large difference between the two studied countries could be found thanks to the coding scheme as well as a striking evolution of the discourse on climate change in the media and the political agenda over time in both countries. In order to discuss them, the manner in which the results will be used will be detailed.

Within the discussion, the score of each newspaper as well as the grade of each country for the media study will be used as basis of study. Concerning the political speech, the grade obtained by combining the political speeches over the studied year per country will be used as reference of analysis. In addition to the scores, in accordance with the McCombs and Shaw theory, the types of adjectives related to the scores will be kept in mind.

Despite the imperfect correspondence in lexical fields between the newspaper articles and the political speeches, the following factors (based on the construction of the coding) will be considered: if an adjective (and, to a larger extent, an article) has a low score, this will imply that the lexical field used belongs to uncertainty, constraint or opportunity and if the grade is equal to three, this means that the lexical field of danger is employed since an adjective cannot receive more than the grade of two without being attributed to the "danger" lexical field. Moreover, the adjectives have received their scores in accordance with the word they qualify and not simply the adjective in itself and this will be remembered throughout the discussion. After being detailed within this section, these results will need to be related to the academic literature on each dimension in order to discuss the findings in depth.

A. The evolution of climate change discourse in the media agenda and the political agenda

Answering the first hypothesis stated as following: "If the attributes of climate change can be found on the media agenda, they will also be found on the political agenda in both the United States and China, according to the McCombs and Shaw theory", this section will look into the evolution of discourse on climate change in the media as well as its relation to the political agenda while discussing the McCombs and Shaw theory and the relevance of political speeches as indicators of the public

agenda. In this part, it will be made clear that it is possible to confirm hypothesis one partially: the evolution of attributes in the media agenda can be confirmed but not in the political agenda.

a. *The evolution of climate change discourse*

As the analysis proves us, there is an evolution in the manner climate change is portrayed. Indeed, in the analysed newspapers as well as the studied political speeches, an evolution is noticeable. First, in the media, there is a striking difference in the number of articles produced discussing climate change in the first and the second basis year. Indeed, in the United States, between April 2009 and April 2010, 54 articles were discussing climate change in the three selected newspapers and from April 2014 until 2015, 68 articles could be found. On the other hand, looking into the same time periods in China, 93 articles have been found on the topic of climate change in the first basis year whereas from April 2014 until April 2015, 33 articles have been written. The evolution of the grades of the articles goes along with the number of articles discussing climate change. This implies that the year in which the articles are more numerous, the discourse on climate change is more alarming than for the year with the least articles.

The transition in climate change discourse is however less striking in the studied political speeches. The evolution in the political speeches coming from each country corresponds to its climate change discourse tendency in the media but the difference in grades between the basis years, obtained by the coding scheme, is of only five points for the United States and less than ten points for China. This thesis has also looked into the content and the adjectives the most repeated throughout the media and the speeches to study the evolution of adjectives but this result is again not as salient as within the media since similar adjectives are used but are employed more or less often and with more or less insistency.

The extraordinary evolution of climate change discourse, as can been seen in the study, in the two studied countries has already been analysed by numerous scholars and the results of the analysis seem to confirm the actual studies on the topic, especially in the case of the United States. As a matter of fact, the actual literature has concluded after non-contradicted studies, that the discussions around climate change are evolving because of alarming scientific studies as well as civil society facing problems created by global warming or climate deregulation (Staudt, 2008). Due to

this, increasing political actions towards the protection of the environment but also rising global awareness concerning climate change have been noticed (Staudt, 2008). For this reason, the case of the United States is a perfect illustration of this discourse change pattern within the media. However, the case of China contradicts the general trend as identified by scholars since the Chinese pattern is opposing the American and general trend according to the number of article in the media and the adjectives used to describe climate change. On the other hand, most of the recent studies on public awareness concerning climate change in China have shown that the public awareness is increasing as well as the presence of climate change in the media, which opposes the results of this study (Kuhn, Zhang, 2014). This difference in results is due to the angle of study that has been chosen since the study of this thesis focuses on newspapers as type of media whereas some other studies focus on social media or television that gives different results. Moreover, the studies on public awareness often have difficulties to identify what creates the increase or decrease of public awareness (Kuhn, Zhang, 2014). Scholars studying the evolution of climate change discourse in China often focused on the end of the twentieth century and the start of the twenty first century and have highlighted a peak after 2007 in newspaper articles on climate change (Wu, 2009). The ones that focused on the topic after 2008 all came to a similar conclusion: the methods of communication on climate change and the actors discussing the issue have changed (Eberhardt, 2015). Indeed, as mentioned earlier within this paper, social media is increasingly powerful in transmitting messages to the civil society and non-governmental organizations are also gaining influence on this particular topic. Therefore, the findings made by other scholars on the case of China as well as the findings in this thesis correspond since this analysis focuses on newspapers whereas the new powerful actors on climate change discourse are social media and non-governmental organizations nowadays in China. Thus, through the analysis we can confirm that traditional media has a decreasing role in influencing public awareness on climate change in China. The difference in results between the two studied countries will be developed within the section on the differences between the United States and China and will complete these remarks on the evolution of climate change discourse in the two countries.

The weak evolution of climate change discourse found in the political speeches seems also predictable regarding the contemporary discussions on the veracity of political speeches. Indeed, political communication has been criticized severely for its

truthfulness, since it is perverted by strategy (Gehrke, 2009). In the speech analysis we can observe that the time frame does not make an important difference in terms of political speech content but that the occasion for which the speech has been given makes a larger difference. For example, in 2009, within two speeches given by the former president Barack Obama, one speech given at the United Nations in September scored 14 whereas another speech at the G8 in July scored 0. For the Chinese case, a similar observation can be made with one speech at the Climate Week in October that scored 6 and another speech at the State council in December that scored Minus 1. The same applies for the year 2014/2015. It is then possible to see that the way climate change is portrayed fluctuates depending on the political strategy behind the speech and has therefore these political communications offer a limited reliability on indicating the political measures that will follow on climate change. Thus, the analysis of political speeches as being representative of awareness levels within the political sphere on climate change is relevant and interesting but it cannot be considered as indicator of political actions to come since it does not correspond to strong measures taken by China to tackle environmental problems over the years for example.

b. *The comparison between the media agenda and the political agenda: discussion on the McCombs and Shaw theory and on political speeches as indicators of the public agenda*

As stated previously, the results correspond between the media agenda and the political agenda in both cases but are less remarkable in the analysis of political speeches. The decision to study newspapers and speeches has been initiated by the McCombs and Shaw theory that looks into the transfer of public issues from the media agenda to the public agenda. In order to prove their theory, the two scholars have extensively tested their theory on several cases described earlier throughout the essay and often on elections cases (McCombs, 2002). Within these elections cases in different countries, the scholars found positive correlations between the issues portrayed as the most important by the media and the programmes of the candidates in the elections (McCombs, Shaw, Weaver, 1997). Since the study of this thesis did not focus on a period of election, political speeches have been chosen as expression of political will to analyse the place of climate change on the political agenda.

This analysis has highlighted the weaknesses of the McCombs and Shaw agenda-setting theory despite satisfying results. First of all, the McCombs and Shaw is used as a political agenda-setting theory but the ability to predict what will really be on the political agenda and not only what is said will be on the political agenda, is extremely limited. In opposition to the other agenda-setting theories that analyse the causes of a particular consequence, the McCombs and Shaw agenda-setting theory attempts to predict the consequences of the media factor. Due to the design of this study as well as the studies conducted by McCombs and Shaw, it is possible to relate the media to the political communication strategy but not the political action. Secondly, the second level of analysis of the McCombs and Shaw theory, even though this level of analysis has shown the most positive correlation in the analysis of the scholars, is impacted by language skills and preference. It is possible to make a correlation between the lexical fields used within the media and by the politics but the adjectives, that qualify the issue, seem to be fluctuating depending on the preferences of the speaker and cultural traits. On the other hand, the McCombs and Shaw second level of analysis has permitted to have an innovative study of climate change discourse through adjectives and also highlight an evolution in this discourse in the two case studies. In addition to this, the McCombs and Shaw method gives insight on the political strategy on climate change in place by the politicians and can attempt to predict future behavior to tackle environmental issues.

The other point of attention related to the McCombs and Shaw theory that needs to be discussed following the analysis is the adequacy of using political speeches as indicator of the public agenda. The first-agenda setting theory attempts to find correlations between the media agenda and the public agenda that is broader than the political agenda, but the studies have focused themselves on the political agenda through for example political programs. Recent studies on the evolution of discourse on climate change have shown that public awareness, contained within the public agenda, is rising but the results of the study show a stable discourse in political communications (Kuhn, Zhang, 2014). Therefore, this study and the McCombs and Shaw theory more broadly could benefit from adding a dimension of public awareness analysis to obtain a more complete and accurate idea of the public agenda if the public agenda remains the study target. Otherwise, there is a need to select only the political agenda in the public agenda, like this study has done. Therefore this analysis looked into the correlation of the media agenda with the political agenda and

not the public agenda as a whole. After conducting the analysis, the political agenda has even been delimited to political strategy and this analysis could be considered as a study of the correlation between the traditional media agenda and political strategy.

B. The difference in the media agenda and the political agenda between the United States and China

This section will answer the second hypothesis that has been stated as such: "If countries have a different freedom of press index, the relation between the media and the political agenda will be different within these countries" through a comparison of the results within the two countries, an inquiry of the relation between the media agenda and the political agenda in two countries that have drastically opposed political regimes as well as the study of the differences between newspapers in each country. In this section, we will confirm hypothesis two and give an explanation for this.

a. Discussion on the opposite results in the United States and China

The previous section has looked into the evolution of climate change discourse as a whole and the relation between the media and the political agenda, noticing the difference between the two countries, but this section will attempt to explain the dissimilarities. Ignoring the weak correlation between the media and the political agenda in this section, we are looking at the singularly opposite results in the United States and China. In 2009/2010, Chinese newspapers had an alarming discourse on climate change and talked about this issue in 93 articles whereas American newspapers held a limited and mitigated discourse on climate change in 54 articles. In 2014/2015, the opposite takes place and the American newspapers seemed to have shifted to a frightening discourse with 68 articles whereas Chinese newspapers maintained a similar type of dialogue but the number of articles dropped to 33 articles. In the political speeches, the difference in frequency of using adjectives belonging to the "danger" lexical field is limited.

Several hypotheses could answer the question: Why do Chinese traditional media discuss less climate change whereas the global trend reveals an increase in focus on climate change? The first hypothesis is that Chinese newspapers had other more important issues to put on their agenda in the year 2014/2015. The second hypothesis is that, since the three studied Chinese newspapers are related to the communist

political party in place, the selected media obey to a certain political strategy. The first hypothesis has quickly been neglected since 2014/2015 does not include more important events than 2009/2010 for China and because the time frame of one year is broad enough to capture the discussions around climate change even if there is a focus event at one point in the year, this hypothesis does not seem valid. The second hypothesis will be answered within the sub-section on the importance of the freedom of press in the setting of the media agenda.

The scores in political speech show that the United States has a higher score in 2009/2010 and 2014/2015 than China and this proves a different political strategy as well as a possible different speaking style. Indeed, China, as a developing state, has different political priorities and alliances that might have led to the decision to discuss less extensively the danger and the effects of global warming. As the World Bank group reported, The Chinese government has several priorities including intergovernmental fiscal relations, human development, urbanization, competitiveness, and imports even though carbon dioxide emissions controls and sustainable growth are also priorities to China (Yusuf, Nabeshima, 2006). Therefore, even in speeches in a context dedicated to climate change, the Chinese officials often decide to mention other issues and other actions the country is taking. The natural alliance of China with other developing countries and especially the BRICS countries, as leader of the developing world, might push the country to discuss issues that are more important for its partners such as development especially in a framework including multiple stakeholders (Freeman, 2015). On the other hand, the tone of the American speeches might have been influenced between 2009 and 2015 by the desire of Barack Obama to fulfill an important element of his election campaign: The protection of the environment. As a matter of fact, the former president has even been qualified as "the strongest environmental contender for the White House in US History" in 2009 (Goldenberg, 2009). The pressure of the European Union on its American partner could also be a reason for a higher implication of The United States in its political speeches on climate change (Afionis, 2015). Moreover, as mentioned earlier, the way the Chinese and American government speak about climate change is extremely different depending on the occasion. Both countries have performed an alarming and extensive speech on the topic during the conferences of parties but are less alarming during the bilateral agreement in 2014 between the two countries that

also was an opportunity to discuss diplomatic relations and the economic partnership between the United States and China.

   b. *Discussion of the place of media within a country with a high freedom of press index and a country with a low freedom of press index*

The difference in trend between the United States and China in discourse on climate change in traditional media is salient. Since both countries have an extremely different score in freedom of press index as determined by the Freedom House with the United States having a score of 21 on 100 (Free category) and China 87 on 100 (Not free category) in 2016 ("*Freedom of the press 2016*", 2016), this questions the different role of media in both studied countries and their relation to political agenda-setting.

   As a matter of fact, in the study of the relation between the media and the political agenda, the indications on the freedom of the press are crucial. In a country with a high press freedom such as the United States, the media agenda can be considered as independent and non-influenced by political parties mainly despite an unavoidable bias depending on the personal preferences or interests of a journalist or a certain newspaper (Gelhbach, Sonin, 2014). On the other hand, countries with a low freedom of press such as China will be highly influenced by the political sphere and in some cases, totally controlled by the government (Gelhbach, Sonin, 2014). The results of the analysis are different and could be related to the fundamental difference in press freedom in the two studied countries.

   In the United States, the alarming tone concerning climate change and the number of articles on the topic increase drastically between 2009 and 2014 whereas the former President Barack Obama already considered climate change as a central issue to tackle since first election. Throughout the speech analysis that demonstrated a small change in discourse, we can see that the president had climate change on its agenda in 2009 whereas the most read American newspapers did not have a similar agenda. We can thus say that the media agenda worked independently at least in 2009 from the political agenda. In 2014 and 2015, we saw an increase in number of articles as well as alarming done of the discourse that corresponds to the year of the "revolutionary" 2014 bilateral agreement. Therefore, we can correlate the media agenda to the political agenda and assume that the media agenda formed itself independently for societal reasons rather than political reasons and even that the

media could have had some positive influence in encouraging Barack Obama to initiate such a policy in a country hosting a lot of controversy regarding climate change since the increase in alarming discourse corresponds to political action.

In the Chinese case, since the freedom of press is extremely limited, we could expect that the media agenda would correspond to the political agenda. At the first glance, since China signed an accord with the United States in 2014, it seemed predictable that the number of articles and the alarming content would increase around this date to correspond with the political agenda. But, the opposite has been found. After additional research, the hypothesis that the media agenda is related to the political agenda in China could be verified. Indeed, in 2014 China signed an accord but already earlier the government decided to take action on climate change. In 2006, the introduction of the 11th Five-Year Plan in China traduced the start of a new era in terms of environmental protection in the country. Indeed, for the first time since the first Five-Year Plan in 1953, the protection of the environment was introduced in the plan and even up scaled as priority throughout the 12th Five-Year Plan in 2011 (Fan, 2006). For this reason, we can see that the media agenda corresponds exactly to the political agenda since 2009/2010 has been a year in which Chinese newspapers discussed environmental issues a lot. Since in 2009/2010, the media agenda corresponds to the political agenda, we can ask ourselves: Why is there such a drop in communication on climate change in 2014/2015 in China since an accord has been signed in 2014 on climate change? The answer seems to lay in the evolution of public opinion on the environment in China.

Indeed, in February 2015, the documentary "under the dome", discussing environmental damage and climate change in China, was released worldwide and censored in China by the government. This documentary was called the "The Chinese silent spring moment" and had an extremely large audience and impact on the Chinese population in a country becoming more aware of environmental problems as well as progressively critical of government action (Gardner, 2015). On one hand, the government became increasingly active in environmental policy since 2006 but on the other hand, the public opinion became more critical towards the efficiency of governmental actions despite a certain trust in government policies to tackle environmental problems like taxation for example (Yu, Whang, Zhang, Wei, 2013). The drop on discussion on climate change could thus correspond to the change in public opinion as well as the scandal created by the documentary "under the dome".

As a matter of fact, the Chinese government regularly censored issues that are harmful to its political interests and the studied newspapers could be an example of censorship on climate change by the government in China (Xu, Albert, 2017).

    c. Discussion of the differences in newspapers within the countries

Even though the hypothesis did not focus on the differences in newspapers and this essay decided not to look into the nature of the selected media, it is important to underline the dissimilarities in results obtained within each country. For the case of the United States, the New York Times obtained a score of 54 in 2009/2010 and 144 in 2014/2015, the Washington Post received 13 in 2009/2010 and 47 in 2014/2015 and finally the Wall Street Journal scored 21 in 2009/2010 and 40 in 2014/2015. Thus, we can see striking differences in scores within a same country. In order to understand these differences, we will look into the political affiliation of the newspaper and their audience. The New York Times, that has the highest score in both studied years, is considered as a liberal newspaper affiliated to the Democrats in the United States with only 22% of the readers being considered as conservatives (Weinberg, 2010). In addition to this, 39% of the New York Times readers consider themselves as politically "independent" (Mahapatra, 2013). Moreover, the New York Times' audience is composed by mainly citizens between 19 and 49, male at 56%, with a high income in average and 56% of the audience that graduated from college (Mahapatra, 2013). The Washington Post and the Wall Street Journal had comparable scores in comparison with the New York Times. The Washington Post had a slightly higher score in 2014/2015 and the Wall Street Journal had a somewhat higher score in 2009/2010. The Washington Post is considered as mainly liberal affiliated to the Democrats but it is also known as a newspaper with a growing conservative tendency ("The Washington Post", n.d.). The audience of the newspaper reflects the complex political affiliation of the newspaper with 27% of the readers of the Washington Post being "mainly liberal" ("Where News Audiences Fit on the Political Spectrum", 2014). Finally, the Wall Street Journal is considered as a newspaper being at the center with a conservative majority ("Wall Street Journal News", n.d.). For the Wall Street Journal, the audience has been defined as the following: A majority of the readers between 30 and 49, 71% are male, 56% have a college education, 20% are Republicans and 40% consider themselves as "independent" politically with 32% conservatives and 41% moderates (Mahapatra, 2013). Thus, none of these newspapers

have extreme political views but there is nonetheless a clear difference between the political affiliation and audience of the New York Times in comparison to those of the Washington Post and Wall Street Journal that are more leaning towards conservatism. For this reason, the results of the analysis are not surprising and seem even logical regarding the type of newspapers. Indeed, the difference between the views of liberals and conservatives on climate change have been studied broadly, liberals have proven to be more aware of climate change whereas conservatives tend to be less worried of the phenomenon (Kaplan, 2016). A survey in 2016 showed that: "16% of conservative Republicans were concerned that climate change would cause more droughts, or that rising seas would swallow low-lying land. Among liberal Democrats, on the other hand, 69% thought more droughts were on the way and 67% said rising seas would erode the shores" (Kaplan, 2016). 79% liberal democrats and 64% of moderate Democrats said "climate change is caused by humans" whereas 85% of conservative Republicans and 66% of moderate Republicans thought that human activity is not the main cause of global warming (Kaplan, 2016). In the studied newspapers, the difference in results is less extreme since, as described earlier, despite the Wall Street Journal and the Washington Post being more conservative and having a dissimilar audience than the New York Times, the audience is not Republican in majority.

In China, the scores are the following: 101 in 2009/2010 for the People's Daily and 8 in 2014/2015, 60 in 2009/2010 for the Global Times and 21 in 2014/2015 and finally for the China Daily, 55 in 2009/2010 and 27 in 2014/2015. As for the United States, we will discuss the political affiliation and its audience The People's Daily, that had the highest score in 2009/2010 and the most contrasted scores in the analysed Chinese newspapers, is considered as the main media mouthpiece of the Chinese government even though a scandal occurred in 2015 with the two top leaders of the newspaper being detained by the authorities for several days. Officially, the government said that they were accepting bribes but other hypotheses of this detention have been formulated such as the stance of the newspaper concerning the documentary "Under the Dome" (Huang, 2015). The readership of the People's Daily has declined over the years and has shifted in order to attract the largest and most diverse audience possible (Tang, Lyengar, 2012). The Global Times, part of the People's daily group, is considered as a "nationalistic tabloid" and relies on a team of foreign journalists for the English version of the newspaper that is separated from the

Chinese edition (Huang, 2016). Again, such as the People's Daily, the Global Times is affiliated to the Chinese government and its political party, the Chinese Communist Party (CCP) (Huang, 2016). The audience of the Global Times is large in China and is aimed at all groups of citizens. On the other hand, the English version is aimed at foreigners interested in China and covers topics that might be censored in the Chinese version of the newspaper (Elegant, 2009). Finally, the China Daily is owned by the government, like the two other newspapers but has a different target audience then the People's daily and the Global Times. The target reader and audience of the China Daily are indeed decision-makers with 78% of readership being decision-makers (Persons with a final say on purchasing) ("A brief introduction of China Daily", n.d). Moreover, the newspaper is distributed in the largest cities in majority like Bejing and Shangai and is thus aimed at influencing an urban readership ("A brief introduction of China Daily", n.d).

Despite being three newspapers owned by the CCP, the scores in newspapers are slightly different and more noticeable between the People's Daily and the two others. Indeed, the People's Daily has the highest score in 2009/2010 and the lowest in 2014/2015. This result might be related to the fact that this newspaper is the one that is the most in line with the Chinese government decisions and political strategies. On the other hand, the results of the Global Times in English might be related to the Western audience of the English version of the newspaper. Finally, the China Daily's audience is different than the audience of the People's Daily and this might explain the difference between them. Since the readership is more educated and part of the decision-makers group, these populations might be more able to speak English, read foreign news and feel less close to the strict CPP rules and publications. Nonetheless, the trend and scores remain similar for these three state-owned newspapers and in a further study based on a similar coding, it would be interesting to compare the results of this analysis to the results of a newspaper that is not owned by the Chinese government.

C. The link between image construction and political agenda-setting

This final discussion part will look into the third presented hypothesis "If there is a construction of a policy problem, this phenomenon will be related to the political agenda-setting, in the United States and China" and will discuss the punctuated

equilibrium theory by Baumgartner and Jones as well as the construction of a policy image. The hypothesis three can be confirmed for the United States but not for China.

a. Discussion of the punctuated equilibrium theory

The punctuated equilibrium theory, by Frank Baumgartner and Bryan Jones, has been used within this thesis in order to understand the relation between policy image and political agenda-setting. As a reminder, the punctuated equilibrium theory argues that there are periods of stability in policy-making and periods of change that are created by several factors including an evolution in the policy image (Givel, 2010). As this thesis demonstrates, there seems to be a correlation between a change in policy image and political-agenda setting in the United States but not for the case of China. The discourse on climate change has been selected as indicator of the perception of the policy problem that will shape the final policy image. It has been possible to correlate the representation of climate change on the media agenda and the public agenda for the case of The United States but not for China. Moreover, the evolution in climate change discourse and thus the image of climate change in the United States corresponds to the political decisions on climate change (A more alarming discourse in 2014/2015 corresponding to a climate change agreement with China in 2014). In the case of China, the 2009/2010 climate change discourse corresponds to the introduction of the environment on the Chinese Five-Year Plan but the 2014/2015 discourse does not correspond to the 2014 bilateral agreement decision. If we follow the logic of the punctuated equilibrium theory, an element should have led the Chinese government to make a policy punctuation in 2014 but it does not seem to be related to the policy image in that case.

Nevertheless, the phenomenon of policy change seems more complex than the punctuated equilibrium theory describes. The theory identifies several factors and actors of change but cannot reflect the complexity of political decisions. As the case of China shows, the policy image representation should correspond to the political action but since the Chinese government with the diffusion of the documentary "Under the Dome" decided to adopt a strategy of censorship in its country. The representation of climate change does not correspond to the decision taken during the 2014 bilateral agreement (Givel, 2010). In addition to this, the construction of a policy image is extremely different in a country with a high and a low freedom of press index since in a state like China where the main newspapers are owned by the

state, the image construction is controlled by the state and external actors cannot influence the government. This reverse relationship has not been taken into account in the punctuated equilibrium theory and does not permit to validate the theory for the case of China. However, in a further research, other factors identified by Frank Baumgartner and Bryan Jones that can influence policy stability could be studied to find the real motives of this policy change.

   b. *Discussion of the role of the construction of a policy problem in the perception of a policy image*

The relation between policy problem construction and policy image has been at the center of the debate within this thesis. Indeed, following the guidelines of the punctuated equilibrium theory that argues that a shift in policy image can lead to policy punctuation, the question of what influences a policy image has quickly come to mind. As explained in the literature on public policy change, the construction of a problem is at the root of the way a policy is seen (Stone, 1989). Nonetheless, the punctuated equilibrium theory did not focus on the construction of a policy image and thus this thesis, based on external literature, considered the discourse on climate change as indicator of policy image since it is believed that the issue perception determines the policy image (Stone, 1989).

This section would like to highlight the possible different conclusion on the Baumgartner and Jones theory if other indicators had been chosen. Indeed, if indicators of the final policy image such as reports on the efficiency of a policy would have been chosen rather than the root of the policy image, the interpretation of the punctuated equilibrium theory would have been different in this paper and would have led to a different outcome. The policy image as a whole might have evolved in a different manner than the policy problem construction. It would be an interesting complementary study to look into the comparison between the final policy image and the image of the problem that led to the creation of a policy in order to confirm the existing literature that states that the image of the problem is central. In addition to this, it would also look into the punctuated equilibrium theory at another interesting level.

11. Conclusion

This thesis has aimed at gaining an understanding of the relation between the media and the political agenda as well as of the evolution of climate change discourse in The United States and China between 2009 and 2015. The analysis presented in this thesis has permitted to answer the following research question: *"To what extent has the relation between media framing and the political agenda evolved in the United States and China from 2009 until 2015?".* In order to give an answer to this question, two political agenda-setting theories have been used as tools of analysis. The first theory, by Maxwell McCombs and Donald Shaw, has permitted to create a basis for the coding and to relate the media to the public agenda and the second theory, by Franck Baumgartner and Bryan Jones, allowed this thesis to discuss the creation of a policy image through discourse that impacts political agenda-setting. More precisely, this paper verified three hypotheses:

Hypothesis 1: If the attributes of climate change can be found on the media agenda, they will also be found on the political agenda in both the United States and China, according to the McCombs and Shaw theory.

Hypothesis 2: If countries have a different freedom of press index, the relation between the media and the political agenda will be different within these countries.

Hypothesis 3: If there is a construction of a policy problem, this phenomenon will be related to the political agenda-setting, in the United States and China.

The first hypothesis could be confirmed partially since the attributes of climate change have evolved over the years in the media agenda in both studied countries but the evolution on the political agenda has been found as being less obvious. On the other hand, hypothesis two can be validated entirely since the relation between the media agenda and the political agenda is different in both cases as well as the evolution of climate change discourse. Finally, hypothesis three could be partly validated since the construction of a policy problem seems to be related to political agenda-setting in the case of the United States but not for China.

Thus, the study presented throughout this paper has shown satisfying results since it has permitted to answer the research questions as well as validate, at least partially the formulated hypotheses thanks to a content analysis with a coding scheme. The

complex adjective coding that has been crafted has been based on semantic and discourse analysis to result in the most objective coding possible that led to obtaining satisfying results. In regard to the interesting results, it can be said that the coding scheme has allowed conducting the study correctly despite an unavoidable study bias related to the selection of the coding.

In addition to being a complete research based on theory and coding, this paper aimed at having societal relevance as well as being innovative in the field of study. This thesis believes to have done so based on the following elements: First, the combination of two-political agenda-setting theories to understand the complex phenomenon of agenda-setting that has never been done before. Secondly, the creation of a coding scheme to operate the analysis based on several fields of study including the political agenda-setting field with the McCombs and Shaw theory in addition to the semantic and discourse analysis field. Thirdly, the study of the evolution of climate change discourse in the United States and China through an attribute analysis that permitted to understand partially the relation between media and the political sphere in countries with highly different freedoms of press. Thanks to this, the thesis believes to position itself at the center of several fields that it benefited in the following manner: The agenda-setting theory field through the combination of two political agenda-setting theories as well as two new case studies for the theories, the climate change discourse field through two new studies in highly relevant countries for global warming, the semantic field thanks to a new semantic coding analysis that offered valuable results and finally the political science field in general thanks to the assessment of the relation between the media and the political world within two major political powers. Public policy scholars could learn from this thesis on two levels: Firstly, the combination of several fields of study might result in a more accurate finding than the studies following the guidelines of a single field and secondly, since agenda-setting literature is divided between several theories that compete with each other, this paper showed that agenda-setting theories can be combined in order to have more precise results and a global vision.

On the societal level, this thesis could study the evolution of discourse on climate change within two major stakeholders in the fight for climate change, a phenomenon that affects the entire planet and populations worldwide. In addition to this, this thesis also underlined the relation between media and politics in a world where the media is

increasingly powerful and in which the relation between both spheres is most of the time opaque.

Finally, the limits of this study have been exposed throughout this paper and after having conducted the analysis, the limitations confirmed themselves especially the bias of a self-crafted coding and the correspondence between Chinese newspapers and their English version. Moreover, further research and completing studies could be done in order to go more in depth on the topic and discover alternatives results. Indeed, several propositions of further studies have been exposed throughout this paper including some that would be highly valuable such as a complementary study on the discourse of climate change in the media and the analysis of policy effectiveness reports to have a different angle on policy image. Nonetheless, this thesis remains innovative since both the cases of climate change discourse in the United States and China have never been analyzed in this manner. Moreover, the academic relevance is high thanks to the combination of study fields as well as theories and finally the topic of climate change is crucial to discuss nowadays especially since the election of Donald J. Trump as president of the United States of America whom decided to withdraw from the Paris Accord and gave by this a whole new sense to the fight against climate change.

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13. Appendices

A. Appendix A: The analysis of The New York Times

Number article	Date	Number of adjectives analysed	Final grade article
1	28/04/09	2	2
2	18/05/09	1	1
3	19/05/09	0	0
4	29/05/09	1	1
5	16/06/09	2	4
6	09/08/09	3	9
7	09/08/09	0	0
8	31/08/09	1	1
9	04/09/09	2	2
10	20/09/09	1	3
11	21/09/09	1	3
12	23/09/09	1	2
13	28/10/09	4	6
14	03/11/09	2	2
15	14/11/09	3	7
16	07/12/09	1	3
17	09/12/09	1	1
18	14/12/09	2	2
19	19/01/10	2	1
20	11/02/10	4	4
21	13/02/10	0	0
22	16/03/10	3	3
23	15/03/10	0	0

B. Appendix B: The analysis of The Wall Street Journal

Number article	Date	Number of adjectives analysed	Final grade article
1	07/04/09	0	0
2	28/04/09	2	2
3	02/05/09	2	2
4	15/06/09	4	4
5	11/09/09	1	1
6	21/09/09	2	1
7	06/10/09	0	0
8	22/10/09	2	2
9	02/11/09	2	2
10	30/11/09	0	0
11	03/12/09	1	1
12	06/12/09	4	4
13	06/12/09	0	0
14	05/01/10	1	1
15	26/02/10	1	1

C. Appendix C: The analysis of The Washington Post

Number article	Date	Number of adjectives analysed	Final grade article
1	28/04/14	0	0
2	06/05/14	5	5
3	12/05/14	2	2
4	31/05/14	5	5
5	07/07/14	3	3
6	17/08/14	2	2
7	09/09/14	3	3
8	15/09/14	1	1
9	24/09/14	5	7
10	02/11/14	7	13
11	08/10/14	1	1
12	10/11/14	0	0
13	15/01/15	1	1
14	09/02/15	2	4

D. Appendix D: The analysis of The People's Daily

Number article	Date	Number of adjectives analysed	Final grade article
1	03/04/09	3	3
2	29/04/09	3	3
3	26/05/09	0	0
4	06/06/09	0	0
5	01/07/09	1	1
6	17/08/09	2	2
7	28/08/09	2	2
8	03/09/09	3	3
9	03/09/09	4	8
10	08/09/09	1	1
11	16/09/09	3	1
12	18/09/09	9	13
13	22/09/09	4	12
14	14/10/09	2	2
15	19/10/09	1	1
16	04/11/09	1	1
17	05/11/09	1	3
18	05/11/09	2	2
19	10/11/09	7	13
20	11/11/09	3	3
21	24/11/09	0	0
22	26/11/09	1	1
23	02/12/09	2	2
24	04/12/09	1	1
25	10/12/09	1	1
26	10/12/09	8	8
27	11/12/09	0	0
28	14/12/09	2	2
29	15/12/09	1	1
30	15/12/09	0	0
31	15/12/09	2	2
32	16/12/09	1	1
33	19/12/09	0	0
34	22/12/09	1	1
35	24/02/10	1	1
36	08/03/10	0	0
37	01/03/10	0	0
38	24/03/10	4	4
39	29/03/10	2	2

E. Appendix E: The analysis of The Global Times

Number article	Date	Number of adjectives analysed	Final grade article
1	09/05/14	1	1
2	18/06/14	4	4
3	23/06/14	1	1
4	02/09/14	1	3
5	23/09/14	1	1
6	01/10/14	3	3
7	24/10/14	1	1
8	03/11/14	3	1
9	16/11/14	0	0
10	06/12/14	2	2
11	24/03/15	4	4

F. Appendix F: The analysis of The China Daily

Number article	Date	Number of adjectives analysed	Final grade article
1	01/04/14	3	3
2	28/05/14	2	2
3	06/06/14	0	0
4	14/08/14	0	0
5	15/08/14	1	1
6	16/09/14	0	0
7	20/09/14	9	11
8	22/09/14	2	0
9	29/10/14	1	1
10	03/11/14	4	4
11	12/12/14	0	0
12	12/01/15	4	2
13	12/01/15	5	3
14	17/01/15	2	2
15	02/02/15	0	0

G. Appendix G: The analysis of selected political speeches

Speech country	Date	Number of adjectives analysed	Final grade speech
The United States	28/06/09	1	1
The United States	10/07/09	0	0
The United States	22/09/09	8	14
The United States	23/09/09	2	2
The United States	16/12/09	4	0
The United States	17/12/09	3	3
The United States	18/12/09	1	1
The United States	09/05/14	3	5
The United States	14/06/14	1	1
The United States	04/09/14	2	0
The United States	23/09/14	4	10
The United States	13/10/14	3	3
The United States	11/12/14	2	6
The United States	10/02/15	1	1
China	23/09/09	1	1
China	08/10/09	2	6
China	03/12/09	1	Minus 1
China	12/12/09	1	Minus 1
China	19/12/09	2	4
China	20/12/09	2	2
China	17/02/10	0	0
China	28/08/14	0	0
China	23/09/14	2	4
China	12/11/14	0	0
China	13/11/14	1	1
China	23/12/14	0	0
China	02/03/15	0	0
China	11/03/15	1	Minus 1