

**American and Dutch media coverage of the  
competing claims in the climate change debate:  
A reflection of political polarization?**



**Universiteit Leiden**

**Esther van Dooren**

S1513214

12<sup>th</sup> of June, 2017

Bachelor Thesis

Word count: 8012

Mr. Meffert

## **Abstract**

This study addresses the debate on climate change in 1997, the year of the Kyoto Convention on Climate Change, in the United States (US) and the Netherlands. Within this debate there are many different claims that all compete for the most attention, support and credibility. Broadly speaking, these claims either support the mainstream climate science, are skeptical of this climate science or offer moderate support to parts of certain claims on both sides and combine these to find possible solutions. One way for these claims to achieve this attention is through the mass media, who can be an influential actor in giving salience to claims by covering them in their media output. The competition between these different claims has in some countries, especially in those with a two-party political system such as the US, led to a polarization in the politics on climate change, which has made it very difficult to form policy on the matter. This research examines whether the coverage of the major elite newspapers reflected this absence or presence of polarization in both countries by coding through content analysis of eighty articles which claims and actors were mentioned most in both the different newspapers and the different countries. The results from this research showed that indeed the different groups of claims were mentioned more evenly in the Netherlands than in the United States with a clearer difference as well between the newspapers in the US than between those in the Netherlands.

## **Introduction**

According to the Oxford Dictionary, to claim something is to declare something factually correct, to assert something as being true. However, a claim is not the same as a fact since it lacks the necessary extensive evidence to support it as such and can therefore easily be contested by competing claims. This is exactly what happened with the debate on climate change. This debate has always been controversial because the environmental interests have to compete and also clash with many economic and political aspects and interests. Many different political actors, such as political parties, environmental movements and industrial corporations have very different and competing claims on this issue. The Intergovernmental Panel on Climate Change (IPCC) came forward in 1995 with an official report in which climate change was studied thoroughly by a large group of scientists from all over the world. The most important new finding was that there was a ‘discernable human influence’ on the climate that was mainly caused by the emission that was produced by the burning of fossil fuels (IPCC, 1995). The findings of the IPCC have become commonly accepted by a large majority of the climate scientists around the world (Cook et al., 2013). Groups that support these claims are environmental movements and organizations such as Greenpeace and the World Wildlife Fund (WWF) and in general the more left-wing politicians (Greenpeace, n.d. ; McCright, Dunlap, & Marquart-Pyatt, 2016, p. 340; WWF, n.d. ). On the other hand there are competing claims on this issue mainly supported by climate skeptic scientists, large industry labor unions and in general right wing politicians (McCright et al., 2016, p. 340). These claims contest the mainstream scientific ideas on climate change, try to highlight the uncertainty of the climate science and look at the consequences of

climate change in a different and sometimes even potentially positive way (McCright & Dunlap, 2000; Oreskes, 2007). Besides these two extreme opposites, there is another position in the debate of actors who agree and disagree with parts of both sides. They do believe something needs to be done to stop climate change, but believe that market-orientated solutions that do not hurt the economy as much would be better than the extreme policies of the climate science supporters (Browne, 7 October, 1997)

All of these actors want their claims to get attention and ultimately become incorporated in policy. Since the mass media is a public forum of sorts it automatically plays a role in giving attention to certain claims (Wolfsfeld, 2011). It is therefore interesting to find out which claims are mentioned and which actors linked to these claims are successful in getting them discussed in the mass media. This will give their claim more salience and support in the policy arena. The United States is one of the most polarized countries on the issue of climate change with seemingly only extreme options to choose a position from while in Europe the division is often a lot less extreme (McCright et al., 2016, pp. 338-339 / 350). The general question that this research aspires to answer is which claims on climate change were mentioned in the mass media and whether this reflected the amount of polarization on the issue in the US and the Netherlands.

The best way to assess these claims and the level of polarization in media coverage of the climate change issue is through content analysis of the mass media. The amount of times that certain claims and the actors linked to these claims are mentioned gives an idea of whether the media is contributing to a broad and nuanced debate on the issue or rather just provides information on the very extremes.

It is relevant to shed light on this behavior of the media because the mass media is a very important source of information for the public as well as for politicians, plays a large role in the agenda setting of political issues and can play a part in giving salience and support to certain claims (Trumbo, 1996, pp. 270-271). In a very polarized political environment, making policy is very difficult, if not impossible. It can lead to a standstill in policy making (McCright & Dunlap, 2003, p. 349). For the sake of politics and policy making it would thus be better if issues such as climate change were less polarized so there would be more room for compromises. A comparative study on this topic with the US and the Netherlands as specific countries has until now received little attention. Noting that the political system is very important for the level of polarization in a country, it makes sense to start off with these two countries. For further studies it would be extremely interesting to also add other (democratic) countries with other political systems to this study. This way a stronger generalization would be possible. Therefore, it is academically relevant to analyze this issue for these two countries, to form a foundation of sorts on which further studies can build towards a stronger theory. This would go hand in hand with the question of how independent the media is from the political elite in their coverage of these kind of issues and whether they would be able to influence the levels of polarization by adjusting their coverage to a more nuanced debate.

## **Climate change within Dutch and American politics**

In 1995 the Intergovernmental Panel on Climate Change (IPCC) released a report announcing a consensus stating that greenhouse gasses such as Carbon Dioxide (CO<sub>2</sub>), Methane and CFC's were causing a speed up of global warming that would raise the average temperatures on earth to dangerous levels (Trumbo, 1996, p. 272). The concepts of the greenhouse effect and global warming are often combined in an overarching concept of climate change, even though climate change also entails other variations of the climate. In this study 'global warming' and 'climate change' will be used interchangeably. The release of these greenhouse gasses and the effect they have on the climate is one of the largest unforeseen consequences of the industrialization of the modern world. It is therefore mainly an anthropogenic problem (McCright & Dunlap, 2011, p. 155). Despite the growing scientific consensus on the issue of climate change, climate change denial movements started organizing themselves ever since the beginning of the 1990's to contest the claims of the climate change scientists that climate change is real, that it is man-made and that it can be harmful to human life and the world's ecosystems (McCright & Dunlap, 2003; McCright, Dunlap, & Xiao, 2013). These movements have been trying to change the public's beliefs on climate change for a wide range of reasons, often linked to fundamental right-wing values such as private property rights and lessening governmental intervention into the market system (McCright et al., 2016, p. 343).

These climate skeptic movements are especially active in the US and find the most backing from the conservative and Republican voters in the American population (Dunlap & McCright, 2008, pp. 27-28). With the rise of these climate skeptic movements in the early 1990's, the support for and belief in the still evolving climate science in the US plummeted amongst the (conservative) Republicans. This led to a polarization of the issue between the two major parties, the Republicans and the Democrats (McCright et al., 2016, p. 338). Climate change has become one of the defining factors for political orientation with Liberals and Democrats overall having stronger belief in the climate change claims and are also more concerned about the issue than the Conservatives and the Republicans (McCright et al., 2016, p. 340). Even though about ninety-seven percent of the world's scientist agree on climate change and the way it is caused (Cook et al., 2013), the issue in the US has become so politicized that that does not really matter. Very much the same way as is the case for debate on gun laws and the right to bear arms, this politicization has led climate change to become such an extreme partisan issue that it has become near to impossible to form policy on it (Guber, 2013, p. 95).

The United States is exceptional in the extremity of their polarization on the climate change issue amongst the developed countries in the world (McCright et al., 2016). Other developed countries in Europe tend to be a lot more moderate and less strongly divided (McCright et al., 2016). While in Europe there is still a correlation between political position on a right to left scale and position on climate change, with left-identifying people more concerned about climate change and global warming than right-identifying people, the politics and populations overall are a lot more progressive on the issue than in the US (McCright et al., 2016, pp. 343-344). This can partly be explained by the fact that in Europe

organized climate change denial groups have never been able to get as much attention as they have got in the US. Criticism on climate science by the political elite, citizens or the industry is a lot less visible and the actual denial of climate change is less common in Europe, even though there are of course still actors who are against the climate policies that would lead to restrictions for the large industries, such as a mandatory cut in the emission of fossil fuels (McCright et al., 2016, p. 343). McCright's et al. (2016) study on climate change polarization in Europe analyzed data from the 2008 Eurobarometer 69.2 survey of fourteen Western-European countries, one of which was the Netherlands where 1041 people participated. The Netherlands has quite an extreme multi-party political system in which there are always at least around six major parties all representing different positions on several issues such as taxes, healthcare and other important issues of which climate change is one. Besides that, there are even more smaller parties representing outlier opinions (Epstein, 1980). Unfortunately the specific link between the Netherlands and the polarization and politicization of the climate change issue has not received much attention in past research. However, when looking at the political culture in the Netherlands and at the election programs of several major political parties it can reasonably be expected that the findings for Western Europe will be the same or even weaker in the Netherlands. Of course, like in the rest of Western Europe, there is still some correlation between party positioning and one's position in the climate change debate but because there are so many different party positions to choose from in the Netherlands, this will not necessarily lead to polarization.

### **The media's role in polarization**

The conservative climate change denial organizations and think-tanks in the US have made clever use of the mass media for spreading their message and beliefs by using the American media's professional norms for their own benefit. Especially the objectivity norm which entails that there needs to be a balance of which positions are covered and ensures that both sides of the story are accounted for (McCright & Dunlap, 2011, p. 159; Wolfsfeld, 2011, p. 10). By making smart use of these professional norms, the climate skeptic side achieved an amount of visibility and coverage that was not proportional with the scientific credibility and scientific support of their claims (McCright & Dunlap, 2011, p. 159; Oreskes, 2007). But whether it was legitimate or not, getting attention on the major media channels is extremely important to get support for a claim and in this the climate skeptic side succeeded. To get attention in the media is to increase the salience of a claim and only claims with high salience have a chance to lead to political mobilization (McCright et al., 2016, p. 344; Wolfsfeld, 2011, p. 7). Besides this the media is also a site on which various actors with various claims 'struggle over the definition and construction of social reality' (Gurevitch & Levy, 1985, p. 19). These are two factors that contribute to the power, influence and importance of the mass media.

Informing the public is one of the very important roles assigned to the mass media. However, it is not their only function. Agenda setting is an important activity as well, which also gives the media some kind of power (Arlt, Hoppe, & Wolling, 2011). When the news media decides to heighten the

importance of a certain issue by giving it a priority spot on their agenda, the importance of the issue also rises in the eyes of the public (Wolfsfeld, 2011, p. 105). Elite media such as the Wall Street Journal in the US and in the Netherlands the NRC is also thought to play a more active role in the shaping of not only the public's opinion but also the opinion of the elite and thus foreign policy (Baum & Potter, 2008, p.53). It is then very logical that the different sides of the debate all wanted as much media attention and coverage as possible. Yet, the question should be asked how independent the media actually is from the political elite, their most important supplier of information. The assumption is that when there is more consensus on an issue, the political elite also has more power over the media. However, when there is an opposition that provides the media with information that contradicts the statement of the political elite, the media can choose to give attention to these oppositional claims as well, which means more independence and power for the media since they then have a choice in which positions to cover. By doing so, the media gives the issue a controversial character and the political debate that follows becomes important news as well (Wolfsfeld, 2011, pp. 25-26). This was clearly the case with the climate change debate in the United States, since there was a very strong opposition that hindered a consensus on the issue. Whilst the concerned climate change side wanted to stress the problem and dangers of the issue and the urgency to do something about it, the climate skeptic side wanted to stress the 'non-problematicity' (McCright & Dunlap, 2003, p. 349) of the issue by debunking the warnings of the climate scientists and denying the idea that it is a social problem (McCright & Dunlap, 2003, p. 349). In the Netherlands the climate change issue was often perceived more as a technical and scientific problem rather than a political problem, but nonetheless it was important for the actors wanting to achieve climate policies that the problem showed up on the public and political agenda (Riphagen et al., 2010).

The media has a leading position to collect, frame and choose the information that is shown to the public. During this process the media is influenced both by the political elite that provide them most of the information and the demand and wishes of the public. The media has a position of power because it can decide what is news-worthy and what is not (Baum & Potter, 2008). The relationship between the media and politics seems, to a certain extent, to go two ways. When the political situation changes from for example consensus to more opposition on an issue, the way the media covers the issue also changes. This then leads again to more political change and a cycle takes form of continuous changes of media coverage and political change. This shows that the media is not only reflecting the political situation but can also '*magnify and accelerate change*' (Wolfsfeld, 2011, p. 30).

When looking at the polarization of an issue in the political spheres and the influence this has on the media or vice versa, some research suggests that there is a 'positive relationship between the number of political parties in a democracy and both the extent and diversity of public affairs content in the media' (Baum & Potter, 2008, p. 58). This correlates with the assumption of Wolfsfeld that more consensus, as is generally the case in a one- or two-party system, leads to more influence of the political elite over the media, because there is no opposition for the media to use as a reliable source. This would lead to the expectation that in the Netherlands, with its proportional representation system, a much

broader range of positions on the climate change issue would be covered in the media than in the US. The power and independence of the media regarding issues like climate change is therefore very dependent on the party system and the political elite, but at the same time the characteristics of the political debate are also very dependent on the media coverage.

### **The case**

In December 1997 the Kyoto Conference on Climate Change took place where the leaders of the world came together to find a solution for global warming and to set limits on the emissions of greenhouse gasses. However, in July of the same year the Senate of the United States unanimously passed a resolution to notify the Clinton Administration that they would decline to ratify any climate treaty that would endanger the American economy or would impose mandatory restrictions and reductions on greenhouse gasses, especially when those restriction would only be mandatory for the developed countries and not for the developing nations. This resolution would be known as the Byrd-Hagel Resolution (McCright & Dunlap, 2003, p. 349). Quite clearly, the delegation of the United States that went to Kyoto already knew beforehand that they would not be able to ratify the protocol. This strong opposition of the climate protocol is in part due to the mobilization of climate skeptic organizations who lobbied for the uncertainty of climate science in the years prior to the conference. Their campaign led to a polarization of the climate change debate in politics and public opinion in the United States and made it a partisan issue (McCright & Dunlap, 2011).

The Netherlands was also one of the countries attending the Kyoto Convention. However, they did ratify the protocol in 2002 and have altered their climate policies to match the reduction promises made in the protocol (Europa Nu, 20 March, 2002). This is perhaps partly due to the fact that climate change is a much less polarized issue in the Netherlands and therefore less 'hard lines' were drawn, just like in most Western-European countries (McCright et al., 2016). In the Netherlands issues like climate change also have a tendency to be perceived strictly as scientific and technical issues in contrast to the United States where such issues are often extremely politicized.

Evidently the United States and the Netherlands are opposite from each other in this particular case. The US having a two-party system whilst the Netherlands has a multi-party system, the US politicizes and makes a partisan issue out of climate change whilst the Netherlands views it as a scientific problem that needs to be fixed politically, and ultimately the US declining the protocol whilst the Netherlands ratified it. Because the United States and the Netherlands are quite opposite from each other and the party system plays such an important role in the occurrence of polarization, it makes sense to compare them.

To be specific the question looked at will be which claims in the American and Dutch climate change debate got the most attention and coverage in the elite national newspapers of both countries and was this coverage in the US more polarized than in the Netherlands, reflecting the political situations of both countries on the issue? The level of this polarization is dependent on the relationship between the

media, the political elite and the party system in a country (Wolfsfeld, 2011, pp. 25-30). The expectation for this question will indeed be that the Dutch media coverage will portray a broader and more diverse range of positions on the climate issue than in the US. However, it is expected that there will be less coverage of the climate skeptic side in the Netherlands because the climate skeptic movements and advocates are a lot less visible and salient in Europe and the Netherlands than in the US (McCright et al., 2016).

### **The claims**

It is important to define the different claims that were looked at during the content analysis, since these are the units of analysis. The IPCC produced a report in 1995 stating the scientific consensus on the issue of global warming (IPCC, 1995). The claims made in this report come from an international body and were therefore used as the general claims supporting the climate science. These claims tend to be supported by left-wing politicians and the left-identifying public, in the US the Democrats, and environmental movements and organizations such as Greenpeace (McCright et al., 2016; Greenpeace, n.d.).

The first claim is that the increase in greenhouse gasses, a side-effect of the industrial revolution of the developing countries, has led to an average rise in temperature across the globe as well as other climate changes. For a stabilization of methane and Nitrous Oxide (N<sub>2</sub>O) at today's level a reduction of anthropogenic emission would be necessary of eight percent and more than fifty percent respectively (IPCC, 1995, p. 21).

The second claim made is that the climate has actually already changed over the course of the past century and despite of several cooling effects the earth has actually started to heat up. The global sea level has risen by between ten and twenty-five centimeters in the last century (IPCC, 1995, p. 22).

The third claim is that the climate change as observed 'suggests a discernable human influence' (IPCC, 1995, p. 22). The scientists came to this conclusion even after correcting for natural variations such as solar variability and volcanic forcing (IPCC, 1995, p. 22). In the initial report, the phrase was worded with more confidence but because of a disagreement with several actors during the formulating of the report, they settled for the less confident word 'discernable'.

The fourth and final claim of the IPCC on climate change is that it is expected that the climate will continue to change with a worst case scenario of a global warming of +3.5 degrees Celsius and a worst case sea level rise of ninety-five centimeters both by 2100. But because of the length of time that it takes for greenhouse gasses to 'dissolve' in the atmosphere, the climate would even continue to change if they stopped emissions all together right at that moment. It is therefore important that the emissions are stabilized and reduced as soon as possible to prevent further damage (IPCC, 1995, p. 23).

These four claims can be seen as a subgroup since all four of them support climate science and overall actors that agree with one of these claims, agree with all of them. This subgroup is from now on called the 'climate science claims' when used in the comparisons.



McCright and Dunlap (2000) did a content analysis on the conservative movements counterclaims on climate change. They were able to distinguish three main counterclaims with each consisting of several themes. These three counter claims are the ones used in this research. These claims are often supported by the right-wing politicians and the right-identifying public, in the US the (Conservative) Republicans, and large industrial corporations such as fossil fuel corporations that have an interest in not being restricted by climate policies (McCright et al., 2016).

The first claim is a criticism on the scientific evidence and beliefs in general supporting the very existence of man-made climate change and especially anthropogenic global warming. The climate skeptic movement claims this occurrence does not exist. They claim there is substantial uncertainty about the science of it, they question the reliability and trustworthiness of the mainstream climate scientists, they claim the IPCC has formulated the results of the research in such a way that it would fit their own interests, and they claim that climate change is nothing more than a scare tactic used by the Clinton administration for political means (McCright & Dunlap, 2000, pp. 510-511).

Besides this the climate skeptic movement claims that *if* climate change were to occur, it would bring along positive effects as well and would by far not be as problematic as the pessimistic climate scientists want the world to believe. These potential benefits would be an improvement in our quality of living. The examples that are given are that the heating bills for each household would be lower if the temperature would rise, and that there would be fewer car accidents caused by icy roads. Also, global warming would benefit agriculture and would result in larger crops (McCright & Dunlap, 2000, p. 514).

The third claim is that the effects of proposed action to stop global warming would be disproportionately harmful to the society. Especially internationally binding action is frowned upon. These international treaties would be damaging the national security, would threaten national sovereignty and would restrict economic prosperity and hurt the international competitiveness of the US, especially when developing countries would not be obligated to also commit to the restrictions. There are even groups who claim that the proposed action would even further endanger the climate rather than safe it. This claim mainly focusses on the idea that by allowing climate change policies, the US could risk losing everything they achieved until that moment (McCright & Dunlap, 2000, p. 516).

These three claims together form the second subgroup called the 'climate skeptic claims' when used in the comparisons.

Since this research expects the Netherlands to be more moderate in their position on climate change, it is important to also incorporate claims that fit these positions. These claims however also fit well in the American framework since there were some actors taking a moderate stance in the climate change debate as well. To distinguish these claims that try to find a compromise that both sides of the debate could live with, several election programs from the closest Dutch elections (1998) from the five largest parties (CDA, D66, GroenLinks, PvdA, VVD) have been studied to see which parties mentioned these kind of nuancing claims. In the United States these claims are mostly brought forward by moderate

politicians from either the Republican or the Democratic side and by progressive industry CEO's, such as John Browne of British Petroleum (BP), who strived to make their companies 'green'.

The main claim from this group is that growth should always be sustainable. The economy should not be drastically slowed down but the way the world's industries are growing today cannot be sustained in the long term. Therefore, policy to suppress climate change must come and the world's population should try their best not to make matters worse. There are limits to our energy sources. However emissions do not need to be cut as drastically and urgently as the side agreeing with the climate scientists claim and policies should never be allowed to disproportionately cost the growth of the economy. In a sense this claim accepts the climate scientists claims on climate change but agrees in parts also with the climate skeptic side on the idea that it should not disproportionately hurt the economy and the public.

A second claim is that the best way to achieve a reduction of greenhouse gasses is not to attack the industry with mandatory cuts in their emissions so that they might even cease to exist but to tackle the problem in a more market-orientated way. This would be achieved through a 'greener' tax system: putting higher taxes on environmentally unfriendly products and thus making them less attractive to consumers. Also the idea of 'cap-and-trade' is often mentioned in relation to this claim. This would mean an agreement within a country or perhaps even internationally to allow trading of emission rights amongst industries. Each industry would be set a limit to their emissions (a cap) and if they needed a higher emission allowance they would have to trade emission rights with other industries that did not use up all of theirs (Stavins, 2008). Because of the way the market works, this would give industries high incentives to reduce their emissions and find innovative ways to become 'greener'.

Both of these claims are already more focused on possible policy rather than the discussion of what climate change actually entails like the claims before mentioned. Nonetheless, these are things that have been said quite often by several politicians and other important actors in the debate and are therefore worth mentioning in this research. Because actors who support these last two claims in a way stand in between the two extreme groups by agreeing in parts and disagreeing in other parts with all of the previous claims, these last two claims seem to be a moderate alternative in the debate. Together they form the third subgroup called 'moderate support claims'. This group is a bit less defined than the other two but these claims are overall linked to each other quite often.

The media channel that is chosen are major, elite, national daily newspapers. For the US the Wall Street Journal (six days per week) and the New York Times (seven days per week) are chosen because they both are at the top of total average circulation and therefore reach the largest audience. Besides this, the Wall Street Journal, especially their editorial staff, is known to take a conservative stance whilst the New York Times is perceived to be more liberal (Ansolabehere, Lessem, & Snyder Jr, 2006; Page, 1996). For the Netherlands the daily newspapers that are chosen are the Volkskrant (six days per week) and the NRC Handelsblad (six days per week). Both the Volkskrant as the NRC Handelsblad have a spot in the top five largest circulation of newspapers in the Netherlands. The

Volkskrant is often thought of as a moderate left-wing newspaper whilst the NRC is thought of as middle to moderate right-wing (Domevscek, 2006; InfoNu, 2013).

### **Methods: Content analysis and sampling**

This study used a content analysis of newspaper articles from the before mentioned newspapers in the year 1997 (1<sup>st</sup> of January 1997 until the 31<sup>st</sup> of December 1997). For the American newspapers the media database 'Factiva' was used and for the Dutch newspapers 'LexisNexis'. With the key words 'climate change', 'global warming', 'Kyoto' and 'greenhouse effect' for the American articles and the equivalent for these words in Dutch 'klimaatverandering', 'opwarming van de aarde', 'Kyoto' and 'broeikaseffect' the relevant articles were searched. For the Wall Street Journal there were 144 articles with this search and 387 for the New York Times. For the Volkskrant there were 123 articles that show up on LexisNexis and for the NRC there were 121 articles. The first twenty articles of each newspaper were selected on relevancy (with the 'relevancy' tool on both websites) so there is a total of eighty articles. Because two different databases were used to find the articles, the two different relevancy tools should be explained. On Factiva the system looks for 'prominence and frequency of the terms being searched for, as example, if the searched for word appears in the headline or lead paragraph of an article, and whether it appears multiple times' (Factiva, n.d.). LexisNexis sorts by relevance by taking into account 'the frequency of search terms in the document and in general, the length of the documents, the sequence of terms and the diversity of terms in the document' (LexisNexis Customer Service, 2017). These tools are not a hundred percent similar but there is no reason to expect that this difference has led to major distortion.

Very cautious generalization could be possible with this research design, even though the Netherlands and the US are both quite specific and unique cases. To really be able to generalize, perhaps more countries should be incorporated, such as cases with a political system somewhere in between those of the US and the Netherlands. As mentioned in the introduction, this research aspires to provide a foundation for future and more extensive research on the same area.

The before mentioned claims were coded in all eighty articles. Very strict and clear search words to do so could not really be defined because there are many ways of phrasing these different claims. Therefore, an in-depth reading of all the articles was necessary. For example, the claim from the climate scientists that the climate is changing due to the emission of fossil fuels was depicted in an article of the New York Times on the changing views of the industries on climate change going as follows: "The dominant scientific view is that greenhouse gas emissions are probably responsible for at least part of the rise of 1 degree Fahrenheit in the average global temperature over the last century." (Stevens, 5 August, 1997).

Besides these claims, many actors were mentioned in the articles as well. These actors can play an important role in strengthening or weakening the beliefs in certain claims amongst the public. It made sense to code them and divide them into five major groups; environmental organizations and climate scientists (e.g. Greenpeace, IPCC), large industry corporations (e.g. Ford, BP, Exxon), climate skeptic

think tanks and lobby groups (e.g. the Global Climate Coalition), right-wing politicians (e.g. J. Inhofe, C. Hagel) and left-wing politicians (e.g. A. Gore, M. de Boer). This gave an idea of what actors in specific got the most attention and coverage in the articles (see Appendix 1 for the coding manual).

After all the articles were analyzed, the results showed which claims were mentioned the most in both countries. From this information it became possible to show whether or not the media reflected the polarization in the political sphere in the US and the Netherlands. This meant that when the data showed a polarized system there were only, or mostly, claims covered that are linked to the two extremes. If there were also more nuanced or middle ground claims covered, this meant that the media was not so very polarized.

## **Results**

The first thing that caught the attention whilst coding the different articles is that the Dutch newspapers have a very international focus in their coverage. It is clear that in the Netherlands climate change is perceived primarily as an international issue and most of the articles also covered the international discussion on climate change. Because the US was such a defining actor in the Kyoto Conference, along with the EU, China and Japan, a lot of the articles in the Netherlands covered the position of the US quite thoroughly. This international focus seems to be a characteristic of Dutch news because other studies also noted this (Riphagen et al., 2010, p. 66). This lies in contrast with the American coverage that primarily focuses on the US itself. When the articles covered international affairs such as the Kyoto convention, they would primarily look at the role of the American delegation within this international framework. Table 1 reports the results of this analysis and shows which percentage of groups of claims were mentioned for each newspaper individually and for each of the countries' newspapers combined.

*Table 1; groups of claims mentioned in newspapers and countries*

	Climate science claims mentioned in articles	Climate skeptic claims mentioned in articles	Moderate support claims mentioned in articles	Total amount of articles
New York Times	90%	85%	45%	20
Wall Street Journal	80%	80%	60%	20
Volkskrant	75%	70%	75%	20
NRC Handelsblad	65%	65%	70%	20
The United States	85%	82.5%	52.5%	40
The Netherlands	70%	67.5%	72.5%	40

Note: Table entries report the percentage of articles in each newspaper or country in which a specific group of claims was reported. The amount of times a certain group was mentioned in total has not been taken into account in these percentages.

*Table 2; actors mentioned in newspapers*

	Environmental groups	Industries	Skeptic movements	Left-wing politicians	Right-wing politicians
New York Times	34	19	5	7	7
Wall Street Journal	20	35	3	3	4
NRC Handelsblad	14	5	2	6	5
Volkskrant	15	10	1	9	5

Note: Table entries report counts of how often a certain type of actor is mentioned in all of the articles. For each of the newspapers twenty articles were analyzed. For the full list of actors mentioned, consult Appendix 1.

### **Differences between newspapers in the United States**

There is a very slight difference in media coverage of the different claims between the New York Times and the Wall Street Journal concerning the climate science claims and the climate skeptic claims, with the New York times reporting just a bit more climate science claims than the Wall Street Journal and an even slighter difference between the climate skeptic side (Table 1). However in the amount of times the claims were mentioned in total there is a big difference between both newspapers. The New York Times mentioned the climate science claim in total in all the articles ninety-four times whilst the Wall Street Journal mentioned these claims only forty times. In contrast the Wall Street

Journal mentioned the climate skeptic claims ninety times in total whilst the New York Times reported these claims only fifty-eight times in total. This makes it clear which claims presumably played the primary role in both the newspaper's articles. The moderate support claims were mentioned more often in the Wall Street Journal than in the New York Times with the biggest difference between the claim that suggested a reduction on greenhouse gases based on a market mechanism with a cap-and-trade possibilities (mentioned thirty-eight times in the Wall Street Journal and fifteen times in the New York Times). This is probably the case because the Wall Street Journal seems to be more orientated towards the large industries. The topic of cap-and-trade laws and such are very much in the interest of these actors, especially for the large industries with high emissions. This also comes to show in the actors the newspapers mention (Table 2). Thirty-five actors that are linked to or are large industry corporations were mentioned in the Wall Street Journal articles. This stands in stark contrast to the New York Times where only nineteen of such actors were mentioned. In the New York Times thirty-four environmental movements and scientists were mentioned and in the Wall Street Journal twenty of these actors were mentioned. This count of different actors shows that the focus of the two newspapers on either the industry side or the environmental movements side is an almost exact opposite from each other.

### **Differences between newspapers in the Netherlands**

The difference in coverage between the two Dutch newspapers, the Volkskrant and the NRC Handelsblad, is in a way similar to the difference of the two American newspapers (Table 1). Both the climate skeptic as the climate science claims were mentioned just slightly more in the Volkskrant than in the NRC. These differences between percentages are the same as for the American newspapers. However, this is where the similarity ends. The amount of times claims were mentioned in the two Dutch newspapers was far more similar than was the case for the American newspapers. The climate science claims were mentioned sixty-three times in total by the Volkskrant and fifty times in total by the NRC, whilst the climate skeptic claims were mentioned thirty-seven times by the Volkskrant and twenty-eight times by the NRC. This shows that overall the climate science claims were mentioned more than the climate skeptic claims. The fact that these skeptical claims were still mentioned as much as they are, despite the lack of support for these kind of claims in the Netherlands, probably has to do with the international focus of the Dutch news and the perception of climate change as an international issue. Since the Dutch newspapers both reported a lot on the international discussion, in which the US was a very important player, a lot of the skeptical claims stem from reporting the American points of view on the issue. The statistics for the climate skeptic claims thus do not report so much the Dutch politics but more the international debate. In the Dutch newspapers a lot less actors were mentioned than in the US (Table 2). The focus seems to lie more on countries than individuals or organizations / corporations. If an actor like an industry is mentioned, most of the time it will be referred to as a category ('the energy industry') rather than a specific actor ('Exxon'). The NRC mentioned fourteen different environmental

movements or scientists and only five industry corporations. The Volkskrant mentioned fifteen environmental movements or scientists and ten industry corporations.

The moderate claims were mentioned in seventy-five percent of the Volkskrant articles and in seventy percent of the NRC articles. The amount of times these claims were mentioned only differed by one (thirty-one times and thirty-two times respectively). These Dutch newspapers lie closer to each other in their coverage of the issue than the American newspapers, which could also be expected since both of them are positioned closer to the political center in their political affiliation.

Something that stood out when comparing all four of the newspapers to each other is that the New York Times had the highest rate of front page news on climate change of all the newspapers that were examined. Forty percent of the articles covering climate change were front page news at this newspaper. This in contrast to ten percent for the NRC and only five percent for the Wall Street Journal and the Volkskrant. This can be an indicator of how important the New York Times perceives the issue because only the most important and most relevant issues are covered on the front page (Sumpter, 2000).

### **Differences between countries**

What especially stands out when comparing the two different countries using Table 1 is the difference in coverage for the moderate support claims. Also, the difference in the coverage of the different claims is a lot smaller in the Netherlands than in the US. In the Netherlands the percentages for each of the subgroups lie a lot closer together, showing a more even display of issues than in the US, where the moderate support claim is more of an outlier. This would fit with the research of Baum and Potter (2008) that suggests that there is a positive relationship between the diversity of political parties and the range of issues of public affairs covered by the media. This would mean that the coverage of the debate is less polarized in the Netherlands than in the US, even though the relationship might not be extremely strong. In a way, the coverage of the newspapers does reflect the polarization in the political debate of both countries with the US focusing more strongly on the two extremes of either support for climate or skepticism towards climate science.

This idea in part is strengthened when looking at the different actors mentioned and which newspaper focuses most on which group of actors (Table 2). For the environmental and industry groups there is a clear difference between the newspapers in the US, but not so much for the Netherlands. The amount of different actors mentioned lies a lot closer together for the NRC and the Volkskrant than for the New York Times and the Wall Street Journal. For the other actor groups there is not really any discernable relationship.

### **Conclusion and critical evaluation**

The debate on climate change is arguably one of the most important debates of our time because whatever claim becomes the most influential will have large consequences for the future of the world and the coming generations. Logically in 1997 when the climate science was still uncertain and evolving,

it generated a lot of opposition in many parts of the world. In the US the climate change issue became one of the most defining partisan issues with a clear divide between the Republican and the Democratic party. This led to a strong political polarization on the issue. In the Netherlands the relationship between party identification and one's position on climate change has always been less strong, partly due to the many different parties who represent many different positions in the Dutch political system and partly due to the fact that conservative think tanks and climate skeptic movements never gained as much foothold in Europe as they did in the US (McCright et al., 2016; Wolfsfeld, 2011, pp. 25-26).

It is important to mention that one obstacle for clear evaluation of the data in this research is the media culture in the Netherlands compared to the one in the US. The difference in media and journalistic culture of both countries could not sufficiently be taken into account in this research. Because the Netherlands has the tendency to cover almost as much or even more international news as it covers national news, the news coverage says less about actual Dutch politics than is the case in the US. This is also one of the explanations why quite a lot of the skeptical claims were mentioned in the Dutch articles, even though those claims are not supported very much in the Netherlands itself. Most of the time this was a coverage of the American point of view rather than the Dutch point of view. This has not been corrected for in the sampling because it is simply the way the Dutch newspapers report and it would give a much too distorted result if it was corrected. Whether the Dutch media reports on Dutch politics or international politics, it still has the same role of provider of information and agenda setter. Nonetheless, it is something that should be kept in mind when looking at the results of this content analysis.

Also, like mentioned in the introduction, to have a more meaningful conclusion which perhaps also could be generalized to other situations, more countries with different kinds of political systems should be taken into account. The US and the Netherlands are both on the extreme opposite side when it comes to their party systems which makes it interesting to compare them but difficult to make an actual generalization. Also, it might be interesting to code in which way the claims were mentioned in the various newspapers and countries. For example, were climate skeptic claims mainly depicted negatively in the New York Times and just mentioned to then be debunked? This would especially provide interesting information in showing the divide between newspapers within countries.

This research focused on the question whether the presence or absence of polarization on the climate change issue was reflected in the elite newspapers of both countries. To conclude, with the eighty articles coded from four major newspapers the results showed indeed that in the Netherlands the different groups of claims were more evenly represented in the articles than in the US, with especially the moderate support claims getting more equal attention. In the United States the most attention went to the two extreme opposite claims of the climate skeptic side and the climate science side, while reporting relatively less on the moderate support claims. When comparing the two newspapers of each country with each other the difference in percentages between which claims were mentioned by the New York Times and the Wall Street Journal did not differ much from the way the



NRC and the Volkskrant varied. However, when looking at how many times each claim was mentioned in total (an indicator of what the articles were actually primarily about) it became clear that there was a larger difference between the two American newspapers than between the two Dutch newspapers. These results show that the American newspapers in a sense each reflect one side of the two extremes in the debate, with both giving less attention to any of the more moderate claims. When looking at the percentages of the coverage of the different claims in the Netherlands, it shows that the Dutch newspapers give their readers a more balanced and more nuanced depiction of all the claims, moderate claims included, than was the case in the US. From these results can be concluded that the newspapers in both countries do, at least in part, reflect the absence or presence of polarization in the debate on climate change in the United States and the Netherlands.

## Bibliography:

- Ansolabehere, S., Lessem, R., & Snyder Jr, J. M. (2006). The Orientation of Newspaper Endorsements in US Elections, 1940--2002. *Quarterly Journal of political science*, 1(4), 393.
- Arlt, D., Hoppe, I., & Wolling, J. (2011). Climate change and media usage: Effects on problem awareness and behavioural intentions. *International Communication Gazette*, 73(1-2), 45-63.
- Baum, M. A., & Potter, P. B. (2008). The relationships between mass media, public opinion, and foreign policy: Toward a theoretical synthesis. *Annual Review of Political Science*, 11, 39-65.
- Browne, J. (1997, October 7). Verandering klimaat duldt geen uitstel van maatregelen. *De Volkskrant*.
- Christen Democratisch Appèl (1998). Samenleven doe je niet alleen. *Verkiezingsprogramma 1998-2002*. Retrieved at:  
<http://pubnpp.eldoc.ub.rug.nl/FILES/root/verkiezingsprogramma/TK/cda1998/cda98.pdf>
- Cook, J., Nuccitelli, D., Green, S. A., Richardson, M., Winkler, B., Painting, R., Skuce, A. (2013). Quantifying the consensus on anthropogenic global warming in the scientific literature. *Environmental research letters*, 8(2), 024024.
- Domevscek, E. (2006). *Politieke Kleur Bekennen: Een Onderzoek Naar de Aanwezigheid Van 'links' en 'rechts' in de Berichtergeving Van de Volkskrant en NRC Handelsblad*. Erasmus Universiteit.
- Democraten '66 (1998). Bewogen in beweging. *Verkiezingsprogramma 1998-2002*. Retrieved at:  
<http://pubnpp.eldoc.ub.rug.nl/FILES/root/verkiezingsprogramma/TK/d661998/d6698.pdf>
- Dunlap, R. E., & McCright, A. M. (2008). A widening gap: Republican and Democratic views on climate change. *Environment: Science and Policy for Sustainable Development*, 50(5), 26-35.
- Epstein, L. D. (1980). *Political parties in Western democracies*: Transaction Publishers.
- Europa Nu (2002, March 20). Nederland stemt in met ratificatie Kyoto Protocol. Retrieved at:  
[http://www.europa-nu.nl/id/vg4hksj4t3rp/nieuws/nederland\\_stemt\\_in\\_met\\_ratificatie\\_kyoto?ctx=vhurdyxq2n77&start\\_tab0=104](http://www.europa-nu.nl/id/vg4hksj4t3rp/nieuws/nederland_stemt_in_met_ratificatie_kyoto?ctx=vhurdyxq2n77&start_tab0=104)
- Factiva (n.d.). FAQ Article: How does sort by relevance work on the results page? Retrieved at:  
<https://customer.factiva.com/en/custsvc/csmain.aspx?&id=11163&from=hl&rtty=1&APC=>
- Greenpeace. (n.d. ). What we do: Climate Change. Retrieved from  
<http://www.greenpeace.org/international/en/campaigns/climate-change/>
- GroenLinks (1998). *Verkiezingsprogramma 1998-2002*. Retrieved at:  
<http://pubnpp.eldoc.ub.rug.nl/FILES/root/verkiezingsprogramma/TK/gl1998/gl198.pdf>
- Guber, D. L. (2013). A cooling climate for change? Party polarization and the politics of global warming. *American Behavioral Scientist*, 57(1), 93-115.
- Gurevitch, M., & Levy, M. R. (1985). *Mass communication review yearbook* (Vol. 5): Sage Publications, Inc., p.19.
- InfoNu. (2013). Journalistiek: de krant / het dagblad. Retrieved from <http://mens-en-samenleving.infonu.nl/communicatie/25509-journalistiek-de-krant-het-dagblad.html>
- IPCC. (1995). *IPCC Second Assessment Climate Change 1995*. United Nations Intergovernmental Panel on Climate Change.
- LexisNexis Customer Service (2017). Personal contact 2<sup>nd</sup> of May, 2017.
- McCright, A. M., & Dunlap, R. E. (2000). Challenging global warming as a social problem: An analysis of the conservative movement's counter-claims. *Social Problems*, 47(4), 499-522.
- McCright, A. M., & Dunlap, R. E. (2003). Defeating Kyoto: The conservative movement's impact on US climate change policy. *Social Problems*, 50(3), 348-373.
- McCright, A. M., & Dunlap, R. E. (2011). The politicization of climate change and polarization in the American public's views of global warming, 2001–2010. *The Sociological Quarterly*, 52(2), 155-194.
- McCright, A. M., Dunlap, R. E., & Marquart-Pyatt, S. T. (2016). Political ideology and views about climate change in the European Union. *Environmental Politics*, 25(2), 338-358.
- McCright, A. M., Dunlap, R. E., & Xiao, C. (2013). Perceived scientific agreement and support for government action on climate change in the USA. *Climatic Change*, 119(2), 511-518.
- Oreskes, N. (2007). The scientific consensus on climate change: how do we know we're not wrong? *Climate change: What it means for us, our children, and our grandchildren*, 65-99.
- Page, B. I. (1996). The mass media as political actors. *PS: political science & politics*, 29(01), 20-24.

- Partij van de Arbeid (1998). Een wereld te winnen. *Verkiezingsprogramma 1998-2002*. Retrieved at: <http://pubnpp.eldoc.ub.rug.nl/FILES/root/verkiezingsprogramma/TK/pvda1998con/pvda-conc98.pdf>
- Riphagen, M., van Doren, D., van der Sluijs, J. P., Ganzevles, J., van Est, R., & Wardekker, A. (2010). Klimaatpolitiek en -wetenschap in de media. *Ruimte voor Klimaatdebat: zicht op interactie tussen klimaatpolitiek, wetenschap en media*.
- Stavins, R. N. (2008). A meaningful US cap-and-trade system to address climate change. *FEEM working paper No. 82.2008*.
- Stevens, W.K. (1997, August 5). Industries Revisit Global Warming. *The New York Times*. P. 1.
- Sumpter, R. S. (2000). Daily newspaper editors' audience construction routines: A case study. *Critical Studies in Media Communication*, 17(3), 334-346.
- Trumbo, C. (1996). Constructing climate change: claims and frames in US news coverage of an environmental issue. *Public Understanding of Science*, 5(3), 269-284.
- Volkspartij voor Vrijheid en Democratie (1998). Investeren in uw toekomst. *Verkiezingsprogramma 1998-2002*. Retrieved at: <http://pubnpp.eldoc.ub.rug.nl/FILES/root/verkiezingsprogramma/TK/vvd1998/vvd98.pdf>
- Wolfsfeld, G. (2011). Making sense of media and politics. *Five Principles in Political Communication*. New York: Routledge.
- WWF. (n.d. ). Reducing impacts: Climate and Energy. Retrieved from [http://wwf.panda.org/what\\_we\\_do/footprint/climate\\_carbon\\_energy/](http://wwf.panda.org/what_we_do/footprint/climate_carbon_energy/)

## **APPENDIX 1**

### **Coding Manual**

#### *Date*

Report date

#### *Country*

1. United States of America
2. The Netherlands

#### *Newspapers*

1. The New York Times
2. The Wall Street Journal
3. The Volkskrant
4. The NRC Handelsblad

#### *Claims and amount of times mentioned*

1. The increase of greenhouse gasses has led to global warming
2. Over the past century the climate has changed against the course of nature
3. The climate change as observed suggests a discernable human influence
4. The climate will continue to change in the future
5. There is no substantial amount of scientific evidence to be certain of climate change or the assumption that it is anthropogenic
6. The proposed action to stop climate change would be more harmful than ameliorative
7. If climate change were to exist, it would be potentially beneficial
8. Economic growth should not be discouraged, as long as it is sustainable
9. The climate change issue should best be tackled by a market-based method that would be achievable for the industry, including greener taxes and a cap-and-trade agreement

#### *Mentioned actors*

Environmental movements and scientists:

F. Singer, R. Balling, UN Framework convention on climate change, 'mainstream scientists', Environmental Defense Fund, D. Esty, Business Council for Sustainable Energy, International Climate Change Partnership, National Climate Data Center, Intergovernmental Panel on Climate Change, B. Santer, National Center of Atmospheric Research, J. Hansen, NASA Goddard Insitute for Space Studies, M. Schlesinger, National Environmental Trust, Global Climate Information Project, Sierra Club, National Council of Churches, M. Oppenheimer, World

Resources Institute, Science and Environmental Policy Project, Environmental Protection Agency, Globalwarming.org, World Climate Reports, D. Jorgenson, T. Wigley, P. Clapp, Resources for the Future, S. Schneider, F. Krupp, Greenpeace, B. Bolin, World Wildlife Fund, P. Gorman, National Religious Partnership for the Environment, M. Meacher, Communities for a Better Environment, Clean Air Conservancy, F. Baede, KNMI, H. Altevogt, Greenpeace Nederland, Centrum van Milieurecht en Beleid, Union of Concerned Scientists, Stichting Natuur en Milieu, UN Environmental Program, Forests absorbing Carbon dioxide Emissions, Uganda Wildlife Authority, Vereniging Milieudefensie, B. Hare, Alliance of Small Island States.

#### Industries

Western Fuels, British Petroleum, J. Browne, Coalition of Industry Moderates on Climate, C. Holmes, National Mining Association, Edison Electric Institute, W.F. O'Keefe, National Association of Manufactures, American Petroleum Institute, National Consumer Coalition, Mobil Corp., Electric Power Research Institute, US Chamber of Commerce, American Automobile Manufacturers Association, General Motors, Ford Co., Chrysler Corp., National Highway Traffic Safety Administration, S. LaBruna, Public Service Electric & Gas Co., International Energy Agency, R. Priddle, South Coast Air Quality Management, Ultramar Diamond Shamrock Corp., Emissions Marketing Association, Chicago Board of Trade, Niagara Mohawk Power Corp., United Mine Workers, R.J. Eaton, American Iron and Steel Institute, US Steel Group of USX Corp., Maxxan Inc., Kaiser Aluminum Corp., American Petroleum Institute, Southern Co., Plum Creek Timber LP, R. Friend, High Plains Corp., Mercedes, Volvo, AFL/CIO, Shell, Texaco, Exxon, D. Pearlman, VNO-NCW, FNV, CNV, World Petroleum Congress, OPEC.

#### Left-wing politicians

President Clinton, Vice President Gore, Clinton Administration, R.C. Byrd, J. Kerry, Minister de Boer, S. Eizenstat, T. Wirth, R. Cook, Ruling Party D66, PvdA, GroenLinks, M. Augusteijn, J. Liebermann, President Carter, PM Blair, H. Waxman, J. Dingell.

#### Right-wing politicians

N. Gingrich (House Speaker), J.M. Inhofe, C. Hagel, President Bush sr. / administration, J.H. Chafee, Opposition party CDA, A. Lansink, T. Lott, Minister Nijpels, B. Paxon, D. Schaefer.

#### Skeptical movements and think tanks

Global Climate Coalition, R.S. Lindzen, Cooler Heads Coalition, Advancement of Sound Science Coalition, Hoover Institution, B. Steiner, George C. Marshall Institute.

#### *Position of news item*

1. Front page
2. Inside

