



UvA-DARE (Digital Academic Repository)

Agenda-setting effects of climate change litigation

Interrelations across issue levels, media, and politics in the case of Urgenda against the Dutch government

Wonneberger, A.; Vliegenthart, R.

DOI

[10.1080/17524032.2021.1889633](https://doi.org/10.1080/17524032.2021.1889633)

Publication date

2021

Document Version

Final published version

Published in

Environmental Communication

License

CC BY-NC-ND

[Link to publication](#)

Citation for published version (APA):

Wonneberger, A., & Vliegenthart, R. (2021). Agenda-setting effects of climate change litigation: Interrelations across issue levels, media, and politics in the case of Urgenda against the Dutch government. *Environmental Communication*, 15(5), 699-714.
<https://doi.org/10.1080/17524032.2021.1889633>

General rights

It is not permitted to download or to forward/distribute the text or part of it without the consent of the author(s) and/or copyright holder(s), other than for strictly personal, individual use, unless the work is under an open content license (like Creative Commons).

Disclaimer/Complaints regulations

If you believe that digital publication of certain material infringes any of your rights or (privacy) interests, please let the Library know, stating your reasons. In case of a legitimate complaint, the Library will make the material inaccessible and/or remove it from the website. Please Ask the Library: <https://uba.uva.nl/en/contact>, or a letter to: Library of the University of Amsterdam, Secretariat, Singel 425, 1012 WP Amsterdam, The Netherlands. You will be contacted as soon as possible.

UvA-DARE is a service provided by the library of the University of Amsterdam (<https://dare.uva.nl>)



Agenda-Setting Effects of Climate Change Litigation: Interrelations Across Issue Levels, Media, and Politics in the Case of Urgenda Against the Dutch Government

Anke Wonneberger & Rens Vliegthart

To cite this article: Anke Wonneberger & Rens Vliegthart (2021) Agenda-Setting Effects of Climate Change Litigation: Interrelations Across Issue Levels, Media, and Politics in the Case of Urgenda Against the Dutch Government, *Environmental Communication*, 15:5, 699-714, DOI: [10.1080/17524032.2021.1889633](https://doi.org/10.1080/17524032.2021.1889633)

To link to this article: <https://doi.org/10.1080/17524032.2021.1889633>



© 2021 The Author(s). Published by Informa UK Limited, trading as Taylor & Francis Group



Published online: 01 Mar 2021.



[Submit your article to this journal](#)



Article views: 2602



[View related articles](#)





[View Crossmark data](#)



Citing articles: 1 [View citing articles](#)

Agenda-Setting Effects of Climate Change Litigation: Interrelations Across Issue Levels, Media, and Politics in the Case of Urgenda Against the Dutch Government

Anke Wonneberger  and Rens Vliegenthart 

Amsterdam School of Communication Research, University of Amsterdam, Amsterdam, the Netherlands

ABSTRACT

An increasing number of climate lawsuits worldwide address responsibilities of climate change mitigation or adaptation. Yet, we know little about wider socio-political consequences of climate change litigation. This study focusses on the successful case of Urgenda vs. the Netherlands, which has created precedence for similar lawsuits against governments in other countries. Following theories of intra-media and political agenda setting, we analyze interactions between media attention (newspaper articles) and political attention (parliamentary questions) for the Urgenda case and higher-level issues, namely climate policy and climate change in general. Employing Vector Autoregression models we find that media attention for the lawsuit led to greater parliamentary attention. Moreover, we find bottom-up agenda-setting effects with media attention for the case influencing greater media and political attention for climate policies. This study reveals that climate litigation can have indirect consequences beyond the court ruling with media attention for a lawsuit as a crucial vantage point.

ARTICLE HISTORY

Received 16 September 2020
Accepted 1 February 2021

KEYWORDS

Climate change litigation; Urgenda; political agenda setting; intra-media agenda setting; vector autoregression analyses

1. Introduction

Climate change litigation has received an upsurge in various countries worldwide over the last decennia. Particularly, lawsuits against nation states are increasingly used by climate change activists as a means to enforce and accelerate political action to mitigate negative consequences of climate change (Gupta, 2007; Setzer & Vanhala, 2019). The so-called Urgenda case in the Netherlands stands out as the first case that successfully enforced the implementation of stricter national emission targets. Since the first positive verdict articulated in 2015, this lawsuit initiated by the Urgenda Foundation did not only have consequences for national climate change politics but also has been widely considered a precedence case and can be assumed to have triggered similar cases in other countries (Ferreira, 2016). While there is a lively discussion in academia concerning the foundations and effectiveness of such litigation cases, especially, from a policy and law perspective (Hofmann, 2019; Peeters, 2016; Pfrommer et al., 2019; Setzer & Vanhala, 2019), the wider socio-political impact of climate change litigation against nation states has received little attention (McCormick et al., 2018; Vanhala, 2013). Specifically, the resonance of such law cases in public discourses and subsequent political effects have not yet been studied. While lawsuits may directly influence policy

CONTACT Anke Wonneberger  a.wonneberger@uva.nl  Department of Communication Science, Amsterdam School of Communication Research, University of Amsterdam, PO BOX 15791, 1001 NG Amsterdam, the Netherlands

© 2021 The Author(s). Published by Informa UK Limited, trading as Taylor & Francis Group
This is an Open Access article distributed under the terms of the Creative Commons Attribution-NonCommercial-NoDerivatives License (<http://creativecommons.org/licenses/by-nc-nd/4.0/>), which permits non-commercial re-use, distribution, and reproduction in any medium, provided the original work is properly cited, and is not altered, transformed, or built upon in any way.

making and regulation, public awareness and debate represent indirect influences which may further contribute to behavioral, cultural, and political changes (Peel & Osofsky, 2013).

In this study, we combine intra-media agenda setting (Djerf-Pierre, 2012) and political agenda setting (Walgrave & Van Aelst, 2006) to examine, first, the salience that a litigation case receives on the media and political agenda and, second, how this salience affects other, related issues on both agendas. We thus focus on interactions between different issues – or more specifically, on potential spillover effects between different layers of a problem.

Climate change litigation can be regarded as a focusing event (Kingdon, 2014) with multiple possible consequences on different arenas and issue levels. A law case against a government is likely to be observed critically by political and media actors. Following the logic of agenda setting, the salience on both agendas may influence one another (Vliegenthart et al., 2016; Walgrave & Van Aelst, 2006). Furthermore, taking interactions between sub-issues into account (Djerf-Pierre, 2012; Mazur & Lee, 1993), we argue that the discussion in both the political and media arena stimulate the debate about the substantial issue underlying the lawsuit which is policies directed at the reduction of national greenhouse gas (GHG) emissions. Finally, we assume that greater political and media salience about climate change related policies may contribute to the broader discussion about climate change in general in the news media. In sum, the aim of this study is to assess the socio-political impact of the Urgenda case. Based on newspaper articles and parliamentary questions we study how media attention and political attention for the case influenced the public debate on (1) climate-change related policies and (2) on climate change more in general.

2. Urgenda Foundation versus the State of the Netherlands

In international comparison, the Netherlands frequently appear to lag behind in their level of political mitigation actions while the countries' level of GHG emissions has consistently been well above the European average for over two decades (World Bank, 2020). In this context, the Dutch environmental foundation Urgenda initiated a law case against the state of the Netherlands concerning non-sufficient political action to prevent climate change in 2013. The main argument brought forward by Urgenda was that the Netherlands had committed to the objective of stabilizing and minimizing global GHG concentrations to prevent dangerous consequences of climate change, for instance, by signing international agreements, such as the United Nations Framework Convention on Climate Change (UNFCCC) and the Kyoto Protocol. According to the plaintiffs, however, the respective political response was unsuitable to reach these goals, and therefore the state violated its responsibility to protect its current and future citizens from negative consequences of climate change. This is why Urgenda demanded the Dutch government to ensure that national GHG emission is reduced by 40% until 2020 (Cox, 2016).

The first public announcement by Urgenda concerning this trial was made in November 2012. In September 2013, Urgenda and about 900 citizens acting as co-plaintiffs handed in a subpoena to the district court in The Hague. In June 2015, the court announced its decision in favor of Urgenda. This set a historic precedence by ordering the government to limit national emissions by a minimum of 25% until 2020 compared to the level of 1990. This judgement was confirmed by the Dutch Supreme Court in December 2019. Not only the success of the case but also its specific approach has triggered international attention. Previous cases of climate change litigation against political institutions had mainly targeted governmental agencies as opposed to nation states (McCormick et al., 2018). Moreover, the main arguments were anchored in environmental and planning law. The Urgenda case was the first case that directly addressed a national government by the means of tort law by stating that insufficient mitigation policies represent a violation of constitutional and human rights (Cox, 2016). An *Urgenda effect* has been observed in terms of scientific publications on climate change litigation (Setzer & Vanhala, 2019) pointing to an increased academic interest for this case. While this interest focusses on legal implications, the current study seeks to take a broader perspective on socio-political consequences by assessing its impact on

the political and media salience of this case as well as subsequent salience levels of climate policies. We consider these potential consequences as agenda-setting effects of the litigation case.

Assessing the broader impact of litigation cases in general faces normative challenges, such as the need to clearly define impact, and methodological challenges to adequately address causality (Setzer & Vanhala, 2019). Independent of the actual success reached in court, litigation has been shown to be able to stimulate public and political awareness and action. Public attention for a case is thereby considered a crucial pre-condition for any impact outside the court (McCann, 1994; Peel & Osofsky, 2013; Vanhala & Kinghan, 2018). This is where the current study sets in. By taking an agenda-setting approach, we study a necessary premise for potential subsequent influences of climate change litigation on actual political decision making, wider social change, for instance, via a diffusion of social norms, and eventual changes in national GHG emission levels. A longitudinal research design and analysis allows us to disentangle the influences of real-world events, media attention, and political attention (Soroka, 2002; Vliegenthart et al., 2016).

3. Agenda-setting effects in the context of climate change

Agenda setting is one of the most dominant theories applied in communication and political science to understand the interactions between politics, media, and the public (e.g. Lasorsa, 2008). A core assumption of the theory is that the (relative) salience of issues or objects in one domain can influence their importance in other domains. Two initially independent but increasingly interlinked research traditions can be discerned. Starting with research by McCombs and Shaw (1972), scholars in communication science have focused on interrelationships between news media and public attention. In political science, in contrast, scholars have investigated how political actors or institutions affect one another concerning the relevance they assign to specific issues, which is also denoted agenda building (Baumgartner & Jones, 1991; Cobb & Elder, 1971). Increasingly, research has assessed the dynamic relationships between media and politics (Walgrave & Van Aelst, 2006) or also interrelationships between all three agendas – media, politics, and public – building on both traditions (Soroka, 2002; Vliegenthart & Damstra, 2019).

Environmental issues have received ample attention in both traditions throughout the last decades (see for an overview: Trumbo & Kim, 2015). The study by Funkhouser (1973), for example, as one of the first agenda-setting studies in the communication tradition has included environment and pollution as one out of 14 issues for which media and public attention were compared over seven years. Hereafter, several studies have examined specific environmental issues and have confirmed that media salience of issues, such as pollution, environmental protection, and energy supply, have an influence on the public agenda (Ader, 1995; Atwater et al., 1985; Brosius & Kepingler, 1990).

Research with a focus on climate change has taken political agendas into account. As probably one of the first Ungar (1992) has provided a comprehensive, qualitative assessment of the interplay between dramatic real-world events, public, media, and political discourses. By following the issue of global warming in the U.S. from 1985 to 1992, Trumbo (1995) found that increasing media attention for this issue would lead to higher levels of political attention. The tendency that the media exert stronger effects on politics than the other way around is one of the more general conclusions that studies on agenda setting have drawn (Vliegenthart et al., 2016; Walgrave et al., 2008) and has been confirmed for environmental issues as well (Soroka, 2002).

Issue characteristics affect the mechanisms of public and political agenda setting in several ways (Soroka, 2002; Walgrave & Van Aelst, 2006). According to Soroka (2002) environmental issues are considered unobtrusive because environmental problems are not directly experienced by a majority of people. Building on the obtrusiveness hypothesis (Zucker, 1978), it is assumed that since neither the public nor political actors can directly observe the consequences of environmental problems, both groups more strongly rely on the media and accordingly respond to greater media attention for such issues. Public attention for pollution, for instance, was found not to be related to real-world

cues but to media attention for this issue (Ader, 1995). Climate change, in particular, has been described as abstract, complex and long-term problem linked to high levels of media dependency (Arlt et al., 2011; Stamm et al., 2000). Accordingly, offline as well as online news media have been identified as important source of information about climate change for the general public (Brulle et al., 2012; Taddicken, 2013) as well as policy makers (Sundblad et al., 2009; Takahashi & Meisner, 2011).

In sum, based on findings of research on agenda setting, we can expect a dynamic interplay between the salience of climate litigation on the media agenda and on the political agenda. Political salience can be defined in many different ways by focusing, for instance, on different institutions, formats, or timing of political decision making. We follow the distinction between symbolic agendas, which comprise of issues that are visible and are considered relevant by political actors, and resource agendas, referring to more substantial attention and political response (Edelman, 1964). It has been assumed that symbolic agendas are more volatile and thus more easily affected by real-world events or by media and public attention for an issue rendering symbolic agendas a suitable space to study interactions between different types of agendas (Pritchard & Berkowitz, 1993; Soroka, 2002). Moreover, pre-decisional processes do, of course, determine further choices and outcomes of political decision making (Cobb & Elder, 1971). In line with previous research, we focus on parliamentary questions as a representation of symbolic political responsiveness in multiparty systems (Vliegenthart & Damstra, 2019; Walgrave et al., 2008). Our first research question addresses the interrelationship between media and political agenda:

RQ1: How do parliamentary questions concerning the litigation case and media coverage about this case influence one another?

3.1. The role of focusing events

Interestingly, issue obtrusiveness plays a different role for media salience compared to subsequent public and political agenda-setting effects. Media salience of obtrusive issues has been assumed to be more closely linked to real-world cues compared to less obtrusive issues (Behr & Iyengar, 1985). Plausibly, journalists who act as gatekeepers may perceive unobtrusive issues as less tangible or newsworthy as well. Hence, because of the unobtrusive nature of long-term developments related to climate change or environmental problems more generally, these issues are less likely to receive media attention, especially, when they are competing with other more obtrusive, that is, more dynamic and subjectively pressing issues (Djerf-Pierre, 2012). Meanwhile, public and political salience strongly rely on media coverage which creates a disadvantageous starting position for environmental and climate change issues to generate public and political attention and mobilization. This is why sensational events can be considered a key factor to initiate media attention and subsequent agenda-setting effects for these issues (Djerf-Pierre, 2012; Keskitalo et al., 2012; Soroka, 2002). Moreover, sensational or dramatic events may reinforce possible media effects of unobtrusive issues. During media storms political agenda setting effects have been found to be larger (Walgrave et al., 2017). The combination of unobtrusiveness and sensationalism could thus explain why research across countries and in different time periods has found that environmental issues trigger a greater agenda-setting power of the media compared to issues, such as foreign policy or the economy (Soroka, 2002; Walgrave et al., 2008).

So-called focusing events have been considered as drivers of political attention and acceleration of political and social change (Kingdon, 2014). Focusing events have been defined as sudden and harmful events, oftentimes referring to violent threats by minority groups as an effective means to overcome existing biases (Cobb & Elder, 1971). Specifically, the obvious and rapid occurrence of damages is assumed to create the agenda-setting power of such events (Birkland, 1998). Agenda-setting research in the political science tradition has repeatedly examined the role of focusing events in the context of environmental politics or climate change (Keskitalo et al., 2012;

Liu et al., 2011). Extreme weather events, such as droughts or hurricanes, have been considered as focusing events opening up opportunities for environmental policies (Farley et al., 2007; Ungar, 1992). In comparison, however, research in different countries has revealed that socio-political events, such as climate summits or efforts by climate-change activists, are stronger drivers of media attention for climate change compared to real-world indicators, such as extreme weather events, CO₂ concentration levels, or scientific feedback (Liu et al., 2011; Schäfer et al., 2014).

Liu et al. (2011) mention lawsuits as an example of socio-political focusing events. Specifically, a lawsuit against a government can be expected to be observed critically by political actors as well as journalists who fulfill a watchdog role in democratic, mediatized societies (Eriksson & Östman, 2013). Both related arenas may thus be directly influenced by the course of events of a climate litigation case. Moreover, litigation initiated by an activist organization does often not just follow juridical aims but is also a campaigning tool actively used to increase public awareness (Leachman, 2014). We, therefore, argue that climate litigation can be considered as a focusing event as soon as accompanying communication strategies help to turn a lawsuit into a sensational, more obtrusive issue. So did Urgenda actively promote the case seeking public attention and support. Key events of the case were carefully orchestrated including prominent speakers, such as climatologist James Hansen, at the first public announcement of the case or the public staging of the filing of the lawsuit with a large group of supporters. Such sensational elements were accompanied by dramatic or newsworthy arguments used in the legal documents and public communication emphasizing the danger of climate change, the violation of human rights caused by the government, or the government's moral obligation toward Dutch citizens.

3.2. Interaction between different issue levels

Hilgartner and Bosk (1988) have pointed to the oftentimes non-linear developments of social problems and the role of interactions among problems in the process of collective meaning making. The environment or climate change are broad issues that comprise multifaceted problems on various levels. Since media stories tend to focus on more specific events or problems, several studies have looked into dynamic interrelations between sub-issues concerning the environment (Brosius & Kepplinger, 1990; Chan, 1999; Mazur & Lee, 1993) or climate change (Lyytimäki, 2011). Different sub-issues may thereby either compete for media attention (Djerf-Pierre, 2012) or reinforce each other in creating a greater narrative that raises awareness and concern for more general environmental or climate-related threats (Mazur & Lee, 1993). So have Mazur and Lee (1993) explained the increasing salience of the environment in U.S. news media by unplanned interactions between several sub-issues. While competing issues, such as the nuclear threat during the Cold War, seemed to have diverted the attention of the media, public, and political actors around the mid-1980s, the authors showed how concerns about the depletion of the stratospheric ozone layer and increasing temperatures triggered a broader debate about the greenhouse effect. In parallel, the discussion about the loss of biodiversity intensified and became more salient in the media. Events, such as the fires in the Amazon in 1988 or the Exxon Valdez oil spill in 1989, were used by both environmentalists and journalists to connect the issues of warming and biodiversity loss leading to a greater salience of the global environment in the media. While political agenda-setting effects were not quantified in this study, the findings do indicate that the salience of environmental issues on the political agenda followed the ups and downs on the media agenda (Mazur & Lee, 1993). Focusing on the relation between media and public agenda, Chan (1999) found that an increasing variety of environmental issues being reported in the news in Hong Kong was associated with a declining public salience for these issues. Issue fatigue may be a potential explanation for this development (Djerf-Pierre, 2012). Moreover, Chan (1999) suggests that changes in scope toward more global issues, such as ozone layer depletion, but also more reports about more narrow local issues may decrease the relevance for the general public. Similarly to Mazur and Lee (1993), however, the findings of Brosius and Kepplinger (1990) indicate that a transfer of concern for a specific problem

to a broader problem can take place. In their study, specifically, the Chernobyl accident represented an immediate, urgent event within the wider issue of energy supply and a transfer of salience from the specific to the more general problem was observed.

Given these partly conflicting findings, it seems that spillover effects between environmental sub-issues are highly context dependent. The question is, therefore, under which circumstances sub-issues might create a momentum that may generate greater attention for larger problems related to the environment or climate change. Based on these considerations about issue dynamics, we are interested to what extent attention for climate litigation in both the political and media arena may stimulate the debate about the substantial issue underlying the lawsuit, which is policy directed at the reduction of emission levels. Finally, climate change can be considered as the most global, general problem in the context of emission reduction and this lawsuit. The multiplicity of causes of global climate change as well as possible solutions for climate change adaptation and mitigation then present problems or issues of a lower order. Hence, we are interested in studying to what extent greater political and media salience of climate litigation and policies may contribute to the broader discussion about climate change in the news media. In sum, climate change litigation as a focusing event may have multiple possible consequences on different arenas and issue levels. The next research question addresses these interactions on the media agenda, also referred to as inter-media agenda setting (Djerf-Pierre, 2012):

RQ2: To what extent does media attention for the litigation case lead to more media attention for a) climate change policies and b) climate change in general?

Our final research question explores the interaction of sub-issues across both agendas:

RQ3: To what extent do media and political attention for different issue levels influence one another?

The conceptual model depicted in [Figure 1](#) summarizes the relationships laid out in the research questions.

4. Method

This study makes use of media and parliamentary data about the Urgenda case, climate change policies, and climate change aggregated to the monthly level.

4.1. News coverage

Newspapers are considered most important for political agenda setting (Bromley-Trujillo & Poe, 2020; Walgrave et al., 2008) and coverage in this type of medium is the most dominant source Dutch parliamentary questions refer to (Van Aelst & Vliegthart, 2014). The database *Nexis Uni* was used to search for relevant news articles. The search period started in January 2012,

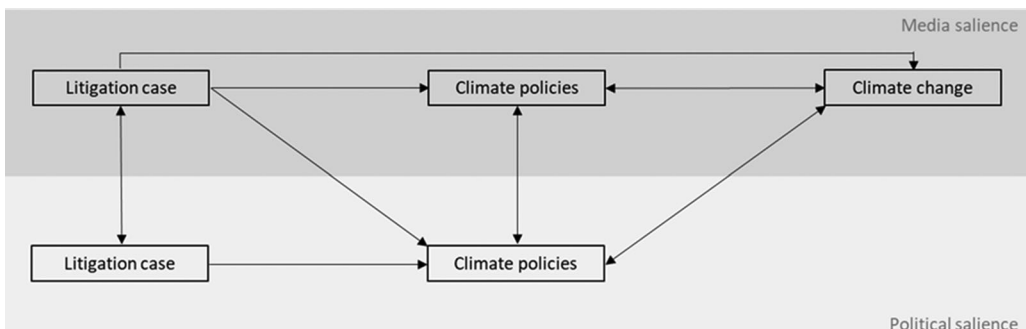


Figure 1. Conceptual model of the impact of climate change litigation on news coverage and political debate.

about 10 month prior to the first public announcement about the case, until the end of January 2020, which was one month after the final judgement of the supreme court. We selected four large national newspapers ranging from politically left to more liberal and conservative ones (*Trouw*, *de Volkskrant*, *NRC Handelsblad*, *De Telegraaf*) assuring that our sample adequately reflected the amount of media attention the issues received from various relevant perspectives.

Urgenda case. A search based on a search string that combined Urgenda and climate in addition to mentions of either the state, government, court, judge, or lawsuit (“urgenda AND klimaat* AND [staat OR regering OR rechtbank OR rechter* OR rechtszaak]”) yielded 566 articles. The relevance of these articles was coded manually by three coders ($n = 40$, Krippendorff’s alpha = .85) resulting in $n = 487$ articles that either dealt with or mentioned the case.

Climate change policies. A search string was derived, tested, and refined that included key terms that were clearly related to climate-related policies with a focus on emission reduction, which was the focus of the litigation case. The terms referred to policy, law, or regulation. References to emissions in general or related technology, such as renewable energy or carbon capture and storage (CCS) were thus not sufficient. The resulting search string (“klimaatwet OR klimaatbeleid OR CO2-beleid OR energiebelasting OR CO2-prijs OR CO2-heffing OR emissiehandel* OR emissierichten”) yielded $n = 3,417$ articles.

Climate change. To gather the amount of media attention to climate change in the most general sense, all articles that mentioned the term climate change (“klimaatverandering”) at least once were included. The resulting 7,292 articles can be considered a realistic proxy of the relevant media coverage on this issue.

4.2. Parliamentary questions

The national parliamentary archive was used to retrieve parliamentary questions. Due to differences in context and format, the corresponding search strings were slightly adapted compared to the newspaper search.

Urgenda case. Searching for the name of the organization (“urgenda OR urgenda*”) resulted in 25 parliamentary questions. Manually screening revealed that all directly addressed either the law case or consequences of the judgement.

Climate change policies. Because of the brief format and inherent relation to policies and regulation the search string was formulated more broadly also allowing for more general references to CO₂, emissions and energy. References to nitrogen were, however, excluded since these were part of a related but parallel national controversy about nitrogen-based pollution. The adapted search string (“klimaatwet OR klimaatbeleid OR CO2* OR *CO2 OR emissie* OR *emissie OR uitstoot* OR *uitstoot OR energie* OR *energie AND -stikstof* AND -stikstof”) resulted in 1,151 parliamentary questions about this topic.

The different sub-samples were merged and aggregated to monthly level data. In addition, we compiled a list of dates of key events related to the litigation case as well as all United Nations Climate Change Conferences held during the research period. Based on this list we constructed two variables that indicated per month the number of key events that took place: one for case-specific events relating to the Urgenda case, and one for other climate change events. These were included in the analyses as control variables.

4.3. Analysis

To answer our research questions, we employed a set of Vector Autoregression (VAR) models. These models take into consideration mutual dependencies across different variables and do not presume any causal ordering. A central component in VAR models is the notion of Granger causality – a variable x is Granger-causing variable y when the prediction of y based on its own past is improving when past values of x are added to the equation. Thus, each VAR analysis consists of

multiple OLS regressions that predict each of the variables of interest based on lagged values of all variables. One of the characteristics of VAR models is symmetry: the right-hand side of each equation (i.e. the set of (lagged) independent variables) is similar for all regressions.

Before a VAR analysis can be conducted, we need to ensure that all variables in the model are stationary – i.e. that their means do not depend on the time of observation. We tested this using the Dickey-Fuller test. Results revealed that all our variables were stationary and consequently did not need to be differenced before proceeding with the analysis.

A second step in the procedure is the lag selection – i.e. the number of lags that is included in each of the regression analyses. Here, both substantial and empirical considerations are of importance. Substantially, we anticipated that agenda setting effects of media on politics and vice versa take place within a time span of several months at the most (see Dearing & Rogers, 1996). Therefore, we limited the number of lags to a maximum of four. After that, we relied on the Akaike Information Criterion (AIC) to select the number of lags that provided the best fitting model. In the results section below, we refrain from presenting regression tables because the inclusion of multiple lags of the same variable might yield issues of multicollinearity and thus difficulty of interpretation of single coefficients. Instead, we rely on the Cumulative Impulse Response Functions (CIRF). These present the over-time change in the dependent variable caused by a one-unit increase in the independent variable at time 0 and provide insight in direction and size of potential effects. Additionally, we rely on the decomposition of the forecast error variance (FEVD), which indicates for each variable what portion of the movement can be attributed to its own changes and to the changes in the other variables in the model. This helps us to gain insight in the size of the effects.

5. Results

First, we were interested in how media coverage and parliamentary questions about the litigation case influenced one another. Figure 2 provides insight into the over-time attention for the Urgenda case, both in newspaper coverage as well as in parliamentary questions. A first peak of media attention occurred in November 2012, when Urgenda had sent a first letter to the government, and a second peak one year later at the official starting point of the legal procedure when the government

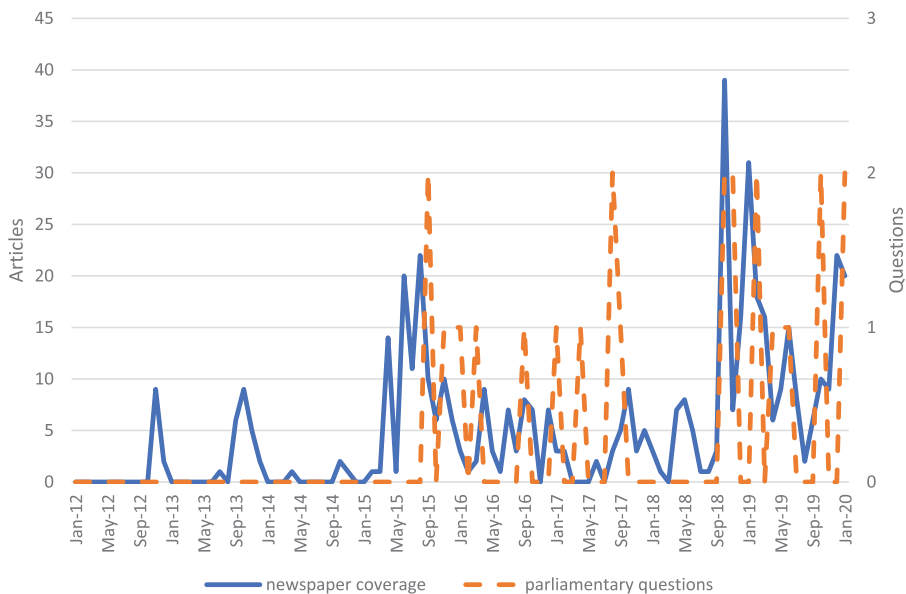


Figure 2. Monthly attention for the Urgenda case in Dutch newspapers and parliamentary questions.

received the summons. While media also paid considerable attention to the first court hearing and judgement in support for Urgenda, the first parliamentary questions cooccurred with the announcement of the government to appeal against the verdict. From this point on, both media and the parliament can be considered to have followed the course of events related to the case with consecutive peaks of attention until the end of our sample period which was marked by the final judgement of the Supreme Court in December 2019.

The two series correlated to a considerable degree with $r = .39$ indicating a positive relationship. To disentangle to what extent media and parliament affected each other, we turn to the first VAR analysis. A model that included attention for Urgenda in newspapers and parliamentary questions and the number of Urgenda-related key events as an exogenous control variable was best fitting when four lags were included. The subsequent Granger-causality test indicated that newspaper coverage was affecting parliamentary attention ($\chi^2 = 32.09$, $p < .001$), but not the other way around ($\chi^2 = 2.08$, $p = .72$). The CIRF (see Figure 3) provided additional insights into the effect: an initial positive effect after one month was followed by another increase at month four. A further gradual increase pointed to a longer-lasting effect. Each newspaper article published on Urgenda yielded after eight months .12 additional parliamentary questions. This is a substantial effect: the decomposition of the forecast variance indicated that after those eight months, around a third of the variance in parliamentary questions could be attributed to changes in newspaper attention.

The second research question tapped into intra-media agenda setting by asking to what extent media attention for the litigation case led to more media attention for (a) climate change policies and (b) climate change in general. Figure 4 presents the attention for climate change policies as well as the general debate about climate change. Considerable fluctuations could be observed for both issue levels with increasingly high attention peaks over the course of the research period. Both series correlated positively to a high degree ($r = .77$). In addition, both series correlated positively with the level of media attention for the Urgenda case ($r = .61$ for policies, $r = .64$ for general coverage).

To further examine the causal mechanisms underlying these positive relationships and to answer the second research question, we again conducted a VAR analysis, this time with the three newspaper variables. We controlled for Urgenda-related and other relevant key events. The AIC

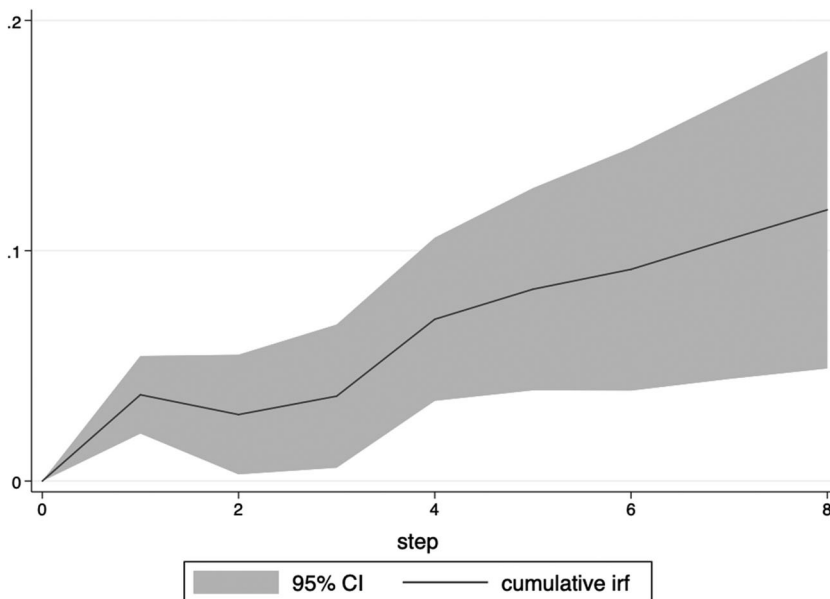


Figure 3. Cumulative impulse response function and 95% confidence interval for the effect of newspaper attention for the Urgenda case on parliamentary questions.

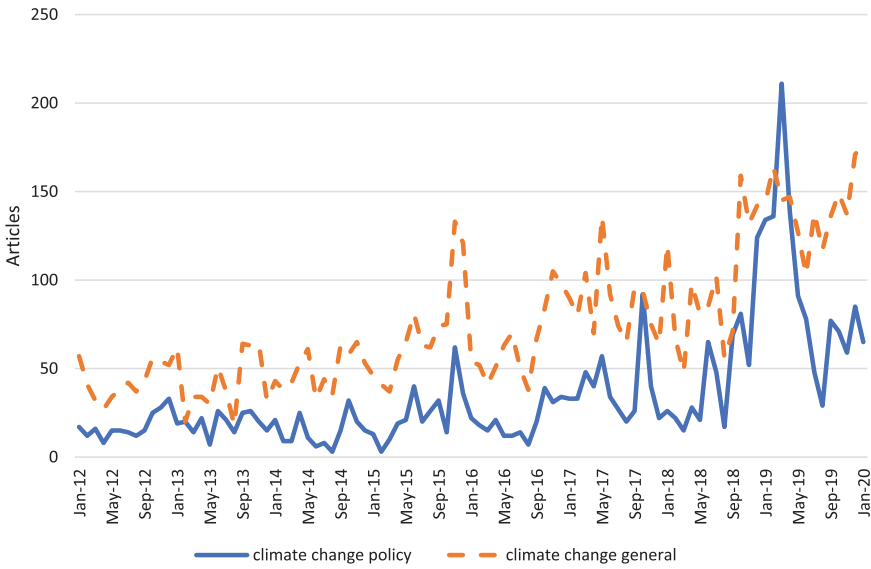


Figure 4. Newspaper attention for climate change policy and climate change in general.

suggested that a model with two lags was the best fitting one. Granger causality tests revealed the existence of various Granger-causal relationships. In the context of this study the most noteworthy ones were those between Urgenda attention and policy attention ($\chi^2 = 13.46, p < .01$), as well as between Urgenda attention and climate change in general ($\chi^2 = 12.58, p < .01$). The CIRF suggests that the influence was in both instances positive – so indeed, attention for the litigation case had bottom-up agenda setting effects on higher issue levels. [Figure 5](#) demonstrates the effect on climate

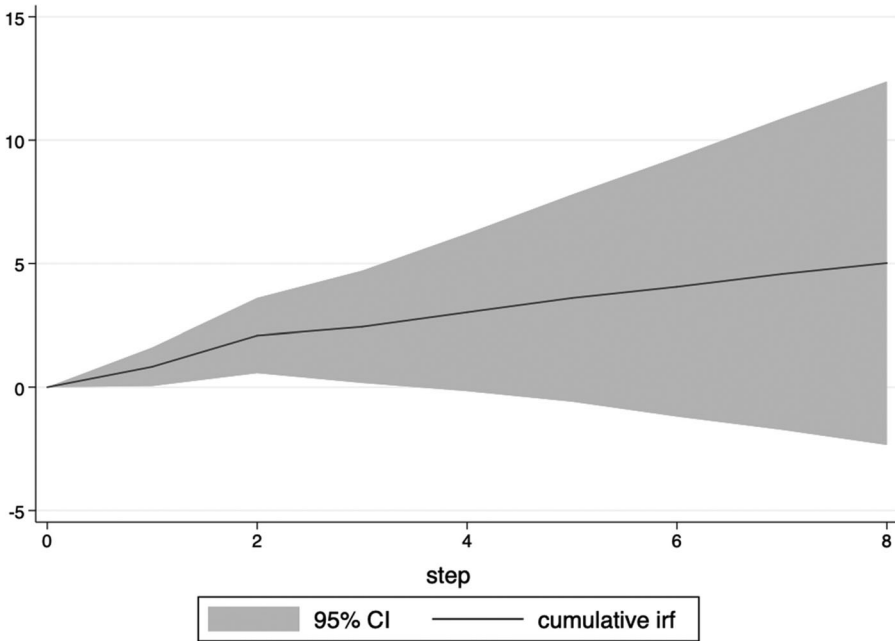


Figure 5. Cumulative impulse response function and 95% confidence interval for the effect of newspaper attention for Urgenda on newspaper attention for climate change.

change in general. Here, we see that one additional article on Urgenda yielded over-time five additional articles on climate change, though the uncertainty was large as reflected by the confidence intervals. For policies we found an even larger effect with a total increase of around seven articles after eight months (see [Figure 6](#)). In both instances, the contribution of the litigation case for broader coverage was substantial over a longer time interval with FEVD scores of 43% (policy) and 31% (general) after eight months.

Our final research question addressed the interaction between media and political agendas at different issue levels. Again, we relied on a VAR model to assess the presence of relationships. The AIC suggested a model with two lags to be best fitting here. The model that included media variables at all three issue levels and political ones at two levels (Urgenda and climate policy) largely confirmed our previous findings and provided some additional insights. First, while case-specific political attention for Urgenda did not affect the media agenda, the political attention for climate change policy did affect newspaper attention for policy ($\chi^2 = 7.92$, $p < .05$; $r = .58$; CIRF indicated that an additional parliamentary question yielded 7.72 additional newspaper articles after eight months; FEVD = 9.9%) as well as general newspaper attention for climate change ($\chi^2 = 6.07$, $p < .05$; $r = .57$; CIRF indicated that an additional parliamentary question yielded 8.01 additional newspaper articles after eight months; FEVD = 8.5%).

Second, we found that newspaper coverage at all levels also influenced general political attention. For Urgenda specific coverage this effect was marginally significant ($\chi^2 = 5.32$, $p = .07$; $r = .46$; CIRF indicated that an additional newspaper article yielded .63 additional parliamentary questions after eight months; FEVD = 21.5%). Also newspaper coverage on climate policy affected parliamentary attention for climate policy ($\chi^2 = 12.64$, $p < .01$; $r = .58$), but the CIRF indicated that an additional newspaper article did not yield significant changes in the number of parliamentary questions in the longer run, and also the FEVD showed limited effects (3.6%). General newspaper attention for climate change had a more substantial impact ($\chi^2 = 12.06$, $p < .01$; $r = .57$; CIRF indicated that an additional newspaper article yielded .38 additional parliamentary questions after eight months; FEVD = 18.9%). [Figure 7](#) summarizes the relationships identified by our analysis.

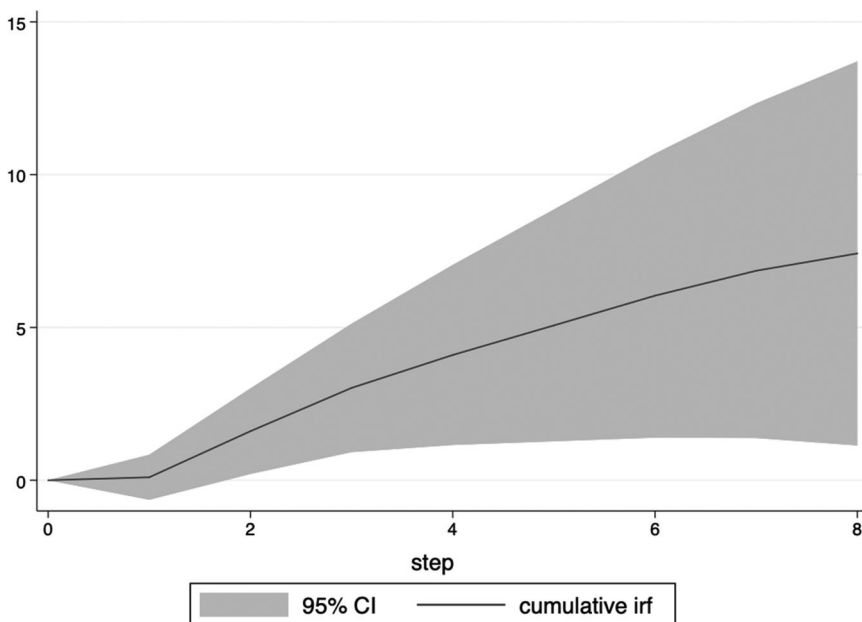


Figure 6. Cumulative impulse response function and 95% confidence interval for the effect of newspaper attention for Urgenda on newspaper attention for climate policy.

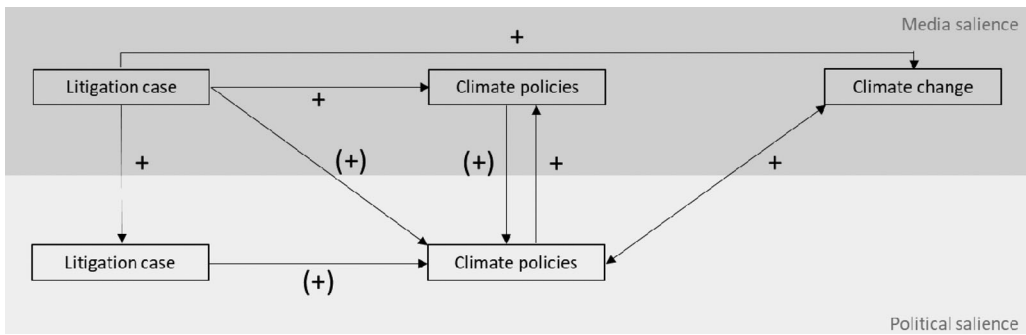


Figure 7. Empirical relationships between issue levels on the media and the political agenda. + denotes significant positive effect, (+) marginally significant effect.

6. Conclusions

Lawsuits against governments are increasingly used to enforce political climate action on national levels, for instance, aiming at cutting down GHG emissions. Although climate litigation receives ample attention from the public and academia, relatively little is known about its indirect effects, that is, possible influences beyond court decisions. Combining intra-media and political agenda setting, the current study has analyzed interactions between media attention and political attention for the case of *Urgenda vs. the Netherlands* and higher level issues, namely climate policy and climate change in general. We found that media attention for the *Urgenda* case led to parliamentary attention for the case while parliamentary questions did not influence media coverage. This is in line with the vast majority of findings in political agenda setting research, that has identified media as “leading the tango” between the two (e.g. Van Aelst & Vliegenthart, 2014).

In addition to affecting political attention, we found that media attention for the *Urgenda* case triggered greater levels of media attention for climate policies and climate change in general. This confirms earlier studies on intra-media agenda setting that have considered climate change as a layered problem with multiple issues feeding into general levels of attention and interacting with one another (Mazur & Lee, 1993). While climate change can be considered an unobtrusive issue competing for media attention with more obtrusive issues (Chan, 1999; Djerf-Pierre, 2012), the sensational character of litigation cases may provide sufficient newsworthiness to generate media attention and initiate subsequent agenda setting processes (Soroka, 2002; Walgrave et al., 2008). In other words, climate litigation can function as focusing event that facilitates media and political attention for issues of higher levels (see Liu et al., 2011). Moreover, looking at the interrelations between the different issue levels on the media and the political agenda indicated partly reinforcing processes at work. Parliamentary attention for climate policies influences media attention for climate policies as well as climate change in general. News coverage about climate change, in turn, contributed to parliamentary attention for climate policies. Such dynamic processes emphasize the relevance of taking reciprocal relationships into account to better understand interactions across issues and agendas.

Prior studies found that the degree to which policy makers are guided by news media content is affected by their area of responsibility and expertise (Helfer & Van Aelst, 2020; Pritchard, 1992). This implies that the *Urgenda* coverage was particularly driving political action for members of parliament focusing on areas, such as the environment or energy. After the first judgement in favor of *Urgenda* the government decided to appeal to it. With an open outcome at this point, political and public debate could be of decisive influence here. While the verdict was applicable immediately rendering governmental action obligatory, parliamentary questions about the government’s plans to implement the so-called *Urgenda judgement* may have influenced the pace and direction of the so-called *Urgenda measures* proposed by the government. Our findings show that media coverage of the case at least partly amplified this political attention. With the parliamentary debate, in turn,

triggering greater media attention for climate policy and climate change in general, these bottom-up agenda setting effects may have further accelerated political climate action and influenced its direction. In addition, however, greater levels of attention may also trigger controversies, specifically, about political measures (Tschötschel et al., 2020). While typically stronger media effects can be found on symbolic political agendas as the one studied here based on parliamentary questions (e.g. Walgrave & Van Aelst, 2006), future research should be expanded to substantial agendas that reflect actual changes in regulations or legislation to test these assumptions.

In sum, our findings confirm the proposition that public attention for litigation can provide a vantage point for broader societal influences of a lawsuit (McCann, 1994). As a campaigning strategy of social movements, litigation has been found an effective tool to increase media attention and movement success also in other areas, such as the LGBT movement (Leachman, 2014) or home-schooling (Boutcher et al., 2018). Our findings of bottom-up agenda setting effects further contribute to an understanding of how litigation can contribute to movement success.

As pointed out by Setzer and Vanhala (2019), research on climate litigation tends to focus on high-profile cases while, in fact, the bulk of cases consists of smaller, local, and less visible ones. In the U.S. alone over 1,300 cases have been filed with tremendous variation in scope and juridical outcomes (Sabin Center for Climate Change Law & Arnold & Porter Kaye Scholer LLP, 2000). Especially, assessing indirect effects of cases that generate lower levels of media attention may require different methodological approaches including qualitative ones offering a more in-depth contextual understanding. In addition, the question arises to what extent insights from the current study can be translated to other cases or jurisdictions. It is reasonable to assume that the mechanisms identified here may also apply to similar cases in other countries, such as more recent climate litigation in multiple countries around the world including Ireland, Canada, India, Mexico, and New Zealand, whose aims and legal arguments have been inspired by the Urgenda case. Clearly, however, internationally comparative research is needed to assess differences in levels of media attention and their consequences for subsequent agenda-setting effects. Finally, interactions between problems are considered as decisive for the development of attention and importance attached to them (Hilgartner & Bosk, 1988). While we have focused on three issue levels here, the selection of issues could, first, be expanded to other related issues. Second, considering other types of problems that are not directly related to climate change but nonetheless compete for attention may help to explain dynamics of public and political attention, specifically, for less successful or less influential cases.

Acknowledgements

Anke Wonneberger: Conceptualization, material preparation, data collection, writing – original draft preparation; Rens Vliegthart: Conceptualization, data analysis, writing – review and editing. All authors read and approved the final manuscript.

Disclosure statement

No potential conflict of interest was reported by the author(s).

Ethics approval

Research approved by the Ethics Review Board of the University of Amsterdam under number 2020-CC-12326.

Data availability statement

The data prepared and used for this study can be accessed via OSF: https://osf.io/947sx/?view_only=fec9d13170344a18ce440dc9030a800

ORCID

Anke Wonneberger  <http://orcid.org/0000-0002-2209-9983>

Rens Vliegenthart  <http://orcid.org/0000-0003-2401-2914>

References

- Ader, C. R. (1995). A longitudinal study of agenda setting for the issue of environmental pollution. *Journalism & Mass Communication Quarterly*, 72(2), 300–311. <https://doi.org/10.1177/107769909507200204>
- 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. <https://doi.org/10.1177/1748048510386741>
- Atwater, T., Salwen, M. B., & Anderson, R. B. (1985). Media agenda-setting with environmental issues. *Journalism Quarterly*, 62(2), 393–397. <https://doi.org/10.1177/107769908506200227>
- Baumgartner, F. R., & Jones, B. D. (1991). Agenda dynamics and policy subsystems. *The Journal of Politics*, 53(4), 1044–1074. <https://doi.org/10.2307/2131866>
- Behr, R. L., & Iyengar, S. (1985). Television news, real-world cues, and changes in the public agenda. *Public Opinion Quarterly*, 49(1), 38–57. <https://doi.org/10.1086/268900>
- Birkland, T. A. (1998). Focusing events, mobilization, and agenda setting. *Journal of Public Policy*, 18(1), 53–74. <https://doi.org/10.1017/S0143814X98000038>
- Boutcher, S. A., Kronberg, A. K., & Werum, R. E. (2018). Getting on the radar screen: Homeschooling litigation as agenda setting, 1972–2007. *Mobilization: An International Quarterly*, 23(2), 159–180. <https://doi.org/10.17813/1086-671X-23-2-159>
- Bromley-Trujillo, R., & Poe, J. (2020). The importance of salience: Public opinion and state policy action on climate change. *Journal of Public Policy*, 40(2), 280–304. <https://doi.org/10.1017/S0143814X18000375>
- Brosius, H. B., & Kepplinger, H. M. (1990). The agenda-setting function of television news. *Communication Research*, 17(2), 183–211. <https://doi.org/10.1177/009365090017002003>
- Brulle, R. J., Carmichael, J., & Jenkins, J. C. (2012). Shifting public opinion on climate change: An empirical assessment of factors influencing concern over climate change in the U.S., 2002–2010. *Climatic Change*, 114(2), 169–188. <https://doi.org/10.1007/s10584-012-0403-y>
- Chan, K. (1999). The media and environmental issues in Hong Kong 1983–95. *International Journal of Public Opinion Research*, 11(2), 135–151. <https://doi.org/10.1093/ijpor/11.2.135>
- Cobb, R. W., & Elder, C. D. (1971). The politics of agenda-building: An alternative perspective for modern democratic theory. *The Journal of Politics*, 33(4), 892–915. <https://doi.org/10.2307/2128415>
- Cox, R. (2016). A climate change litigation precedent: Urgenda Foundation v the State of The Netherlands. *Journal of Energy & Natural Resources Law*, 34(2), 143–163. <https://doi.org/10.1080/02646811.2016.1147887>
- Dearing, J. W., & Rogers, E. M. (1996). *Agenda-setting*. Sage.
- Djerf-Pierre, M. (2012). The crowding-out effect. *Journalism Studies*, 13(4), 499–516. <https://doi.org/10.1080/1461670X.2011.650924>
- Edelman, M. (1964). *The symbolic uses of politics*. University of Illinois Press.
- Eriksson, G., & Östman, J. (2013). Cooperative or adversarial? Journalists' enactment of the watchdog function in political news production. *The International Journal of Press/Politics*, 18, 304–324. <https://doi.org/10.1177/1940161213482493>
- Farley, J., Baker, D., Batker, D., Koliba, C., Matteson, R., Mills, R., & Pittman, J. (2007). Opening the policy window for ecological economics: Katrina as a focusing event. *Ecological Economics*, 63(2-3), 344–354. <https://doi.org/10.1016/j.ecolecon.2006.07.029>
- Ferreira, P. G. (2016). 'Common but differentiated responsibilities' in the national courts: Lessons from Urgenda v. The Netherlands. *Transnational Environmental Law*, 5(2), 329–351. <https://doi.org/10.1017/S2047102516000248>
- Funkhouser, G. R. (1973). The issues of the sixties: An exploratory study in the dynamics of public opinion. *Public Opinion Quarterly*, 37(1), 62–75. <https://doi.org/10.1086/268060>
- Gupta, J. (2007). Legal steps outside the climate convention: Litigation as a tool to address climate change. *Review of European Community & International Environmental Law*, 16(1), 76–86. <https://doi.org/10.1111/j.1467-9388.2007.00541.x>
- Helfer, L., & Van Aelst, P. (2020). Mass media effects and the political agenda. *The Agenda Setting Journal*, 4(1), 88–108. <https://doi.org/10.1075/asj.19002.hel>
- Hilgartner, S., & Bosk, C. L. (1988). The rise and fall of social problems: A public arenas model. *American Journal of Sociology*, 94(1), 53–78. <https://doi.org/10.1086/228951>
- Hofmann, A. (2019). Left to interest groups? On the prospects for enforcing environmental law in the European Union. *Environmental Politics*, 28(2), 342–364. <https://doi.org/10.1080/09644016.2019.1549778>

- Keskitalo, E. C. H., Westerhoff, L., & Juhola, S. (2012). Agenda-setting on the environment: The development of climate change adaptation as an issue in European states. *Environmental Policy and Governance*, 22(6), 381–394. <https://doi.org/10.1002/eet.1579>
- Kingdon, J. W. (2014). *Agendas, alternatives, and public policies* (Pearson new international ed., 2nd ed.). Pearson Education.
- Lasorsa, D. L. (2008). Agenda setting. In C. Holtz-Bacha & L. L. Kaid (Eds.), *Encyclopedia of political communication*. (pp. 13–19). Sage.
- Leachman, G. M. (2014). From protest to Perry: How litigation shaped the LGBT movement's agenda. *UC Davis Law Review*, 47, 1667–1751.
- Liu, X., Lindquist, E., & Vedlitz, A. (2011). Explaining media and congressional attention to global climate change, 1969–2005: An empirical test of agenda-setting theory. *Political Research Quarterly*, 64(2), 405–419. <https://doi.org/10.1177/1065912909346744>
- Lyytimäki, J. (2011). Mainstreaming climate policy: The role of media coverage in Finland. *Mitigation and Adaptation Strategies for Global Change*, 16(6), 649–661. <https://doi.org/10.1007/s11027-011-9286-x>
- Mazur, A., & Lee, J. (1993). Sounding the global alarm: Environmental issues in the US national news. *Social Studies of Science*, 23(4), 681–720. <https://doi.org/10.1177/030631293023004003>
- McCann, M. (1994). *Rights at work: Pay equity reform and the politics of legal mobilization*. University of Chicago Press.
- McCombs, M. E., & Shaw, D. L. (1972). The agenda-setting function of mass media. *Public Opinion Quarterly*, 36(2), 176–187. <https://doi.org/10.1086/267990>
- McCormick, S., Glicksman, R. L., Simmens, S. J., Paddock, L., Kim, D., & Whited, B. (2018). Strategies in and outcomes of climate change litigation in the United States. *Nature Climate Change*, 8(9), 829–833. <https://doi.org/10.1038/s41558-018-0240-8>
- Peel, J., & Osofsky, H. M. (2013). Climate change litigation's regulatory pathways: A comparative analysis of the United States and Australia. *Law & Policy*, 35(3), 150–183. <https://doi.org/10.1111/lapo.12003>
- Peeters, M. (2016). Urgenda Foundation and 886 individuals v. the State of the Netherlands: The dilemma of more ambitious greenhouse gas reduction action by EU member states. *Review of European, Comparative & International Environmental Law*, 25(1), 123–129. <https://doi.org/10.1111/reel.12146>
- Pfrommer, T., Goeschl, T., Proelss, A., Carrier, M., Lenhard, J., Martin, H., Niemeier, U., & Schmidt, H. (2019). Establishing causation in climate litigation: Admissibility and reliability. *Climatic Change*, 152(1), 67–84. <https://doi.org/10.1007/s10584-018-2362-4>
- Pritchard, D. (1992). The news media and public policy agendas. In D. Kenamer (Ed.), *Public opinion, the press and public policy* (pp. 103–112). Praeger.
- Pritchard, D., & Berkowitz, D. (1993). The limits of agenda-setting: The press and political responses to crime in the United States, 1950–1980. *International Journal of Public Opinion Research*, 5(1), 86–91. <https://doi.org/10.1093/ijpor/5.1.86>
- Sabin Center for Climate Change Law & Arnold & Porter Kaye Scholer LLP. (2000). U.S. climate litigation database. <http://climatecasechart.com/us-climate-change-litigation>.
- Schäfer, M. S., Ivanova, A., & Schmidt, A. (2014). What drives media attention for climate change? Explaining issue attention in Australian, German and Indian print media from 1996 to 2010. *International Communication Gazette*, 76(2), 152–176. <https://doi.org/10.1177/1748048513504169>
- Setzer, J., & Vanhala, L. C. (2019). Climate change litigation: A review of research on courts and litigants in climate governance. *Wiley Interdisciplinary Reviews: Climate Change*, 10(3), e580. <https://doi.org/10.1002/wcc.580>
- Soroka, S. N. (2002). Issue attributes and agenda-setting by media, the public, and policymakers in Canada. *International Journal of Public Opinion Research*, 14(3), 264–285. <https://doi.org/10.1093/ijpor/14.3.264>
- Stamm, K. R., Clark, F., & Eblacas, P. R. (2000). Mass communication and public understanding of environmental problems: The case of global warming. *Public Understanding of Science*, 9(3), 219–237. <https://doi.org/10.1088/0963-6625/9/3/302>
- Sundblad, E. L., Biel, A., & Gärling, T. (2009). Knowledge and confidence in knowledge about climate change among experts, journalists, politicians, and laypersons. *Environment and Behavior*, 41(2), 281–302. <https://doi.org/10.1177/0013916508314998>
- Taddicken, M. (2013). Climate change from the user's perspective. *Journal of Media Psychology*, 25(1), 39–52. <https://doi.org/10.1027/1864-1105/a000080>
- Takahashi, B., & Meisner, M. (2011). Comparing influences on Peruvian climate change policy: Information, knowledge, and concern among political elites. *Journal of Intercultural Communication Research*, 40(3), 181–202. <https://doi.org/10.1080/17475759.2011.615854>
- Trumbo, C. (1995). Longitudinal modelling of public issues: An application of the agenda-setting process to the issue of global warming. *Journalism and Mass Communication Monographs*, 152.
- Trumbo, C., & Kim, S. J. (2015). Agenda-setting with environmental issues. In A. Hansen & R. Cox (Eds.), *The Routledge handbook of environment and communication* (pp. 312–324). Routledge.

- Tschötschel, R., Schuck, A., & Wonneberger, A. (2020). Patterns of controversy and consensus in German, Canadian, and US online news on climate change. *Global Environmental Change*, 60, 101957. <https://doi.org/10.1016/j.gloenvcha.2019.101957>
- Ungar, S. (1992). The rise and (relative) decline of global warming as a social problem. *The Sociological Quarterly*, 33(4), 483–501. <https://doi.org/10.1111/j.1533-8525.1992.tb00139.x>
- Van Aelst, P., & Vliegenthart, R. (2014). Studying the tango: An analysis of parliamentary questions and press coverage in the Netherlands. *Journalism Studies*, 15(4), 392–410. <https://doi.org/10.1080/1461670X.2013.831228>
- Vanhala, L. (2013). The comparative politics of courts and climate change. *Environmental Politics*, 22(3), 447–474. <https://doi.org/10.1080/09644016.2013.765686>
- Vanhala, L., & Kinghan, J. (2018). Literature review on the use and impact of litigation. The Public Law Project (PLP) Research Paper. <https://publiclawproject.org.uk/wp-content/uploads/2018/04/Literature-Review.pdf>
- Vliegenthart, R., & Damstra, A. (2019). Parliamentary questions, newspaper coverage, and consumer confidence in times of crisis: A cross-national comparison. *Political Communication*, 36(1), 17–35. <https://doi.org/10.1080/10584609.2018.1478472>
- Vliegenthart, R., Walgrave, S., Baumgartner, F. R., Bevan, S., Breunig, C., Brouard, S., Bonafont, L. C., Grossman, E., Jennings, W., Mortensen, P. B., Palau, A. M., Sciarini, P., & Tresch, A. (2016). Do the media set the parliamentary agenda? A comparative study in seven countries. *European Journal of Political Research*, 55(2), 283–301. <https://doi.org/10.1111/1475-6765.12134>
- Walgrave, S., Boydston, A. E., Vliegenthart, R., & Hardy, A. (2017). The nonlinear effect of information on political attention: Media storms and U.S. Congressional hearings. *Political Communication*, 34(4), 548–570. <https://doi.org/10.1080/10584609.2017.1289288>
- Walgrave, S., Soroka, S., & Nuytemans, M. (2008). The mass media's political agenda-setting power: A longitudinal analysis of media, parliament, and government in Belgium (1993 to 2000). *Comparative Political Studies*, 41(6), 814–836. <https://doi.org/10.1177/0010414006299098>
- Walgrave, S., & Van Aelst, P. (2006). The contingency of the mass media's political agenda setting power: Toward a preliminary theory. *Journal of Communication*, 56(1), 88–109. <https://doi.org/10.1111/j.1460-2466.2006.00005.x>
- World Bank. (2020). CO2 emissions (metric tons per capita) – Netherlands, European Union. World Development Indicators. <https://data.worldbank.org/indicator/EN.ATM.CO2E.PC?locations=NL-EU>
- Zucker, H. G. (1978). The variable nature of news media influence. *Annals of the International Communication Association*, 2(1), 225–240. <https://doi.org/10.1080/23808985.1978.11923728>