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Foreign, Domestic, and Cultural Factors in Climate Change Reporting. Swedish Media Coverage of Wildfires in Three Continents

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Abstract

This study examines domestic media's coverage of foreign wildfires from a climate change perspective. It explores Swedish newspapers' coverage of wildfires in Australia, the Mediterranean region and the USA during a three-year period (February 2013–March 2016), focusing on how and to what extent climate change is viewed as an underlying cause. A central result is that climate change is mentioned far more often in the case of Australian wildfires than of fires in the other two regions. Another finding is that the climate change issue became more prominent after a severe domestic wildfire in 2014. These observations are also examined qualitatively through a combined frame and discourse study where the importance of foreign news values, the use of foreign sources, cultural proximity/distance, and domestication procedures are analyzed. In conclusion, foreign, domestic, and cultural factors in climate change reporting in relation to extreme events are further discussed.

Keywords: wildfires, climate change, media, news values, culture, framing.

Wildfires, climate change, and the media

Because of climate change, wildland fires will probably increase in frequency, intensity and area burned (IPCC 2014; Liu 2010; Tedim et al. 2016). In this context, the media's role as a mediator of knowledge about the connection between climate change and extreme events such as wildfires is of pivotal social importance (Boykoff 2012). However, as several steps of causal thinking are required, connecting the occurrence of wildfires to the problem of climate change might be difficult for mainstream media:

Step 1: A wildfire can result from a human action (intentional or unintentional) or from natural causes such as fuel availability, wind, or lightning strikes (Westerling et al., 2003, p. 595).¹

Step 2: The natural causes might have to do with climate conditions such as climate fluctuations, and thus with rising temperatures and changing precipitation patterns.

Step 3: These climate conditions can be caused by anthropogenic greenhouse gas emissions.

Hence, climate change could only serve as an indirect cause of wildfires, making the connection less obvious to a layperson. This not only serves as an obstacle to mainstream news media outlets, which, by tradition, avoid overly complex scientific reasoning and uncertainties (Berglez 2011), but also seems to be a more general epistemological and cognitive challenge. A study by Lidskog and Sjödin (2016) shows that even among Swedish forest professionals, wildfires are not very often associated with climate change, at least in comparison with severe storms.

¹ Wildfire patterns depend on four key factors (Flannigan et al. 2009; Gill et al. 2013): *fuel* (loading, continuity and structure, etc.); *ignition* (lightning or caused by human behavior); *weather* (temperature, precipitation, atmospheric moisture and wind, sunshine, upper atmospheric conditions); and *humans* (land use, forest practices, fire management, etc.).

Due to the complexity of the above-mentioned causal factors, it is of interest to explore in more detail the relation between wildfires and climate change in the media. There is a need to better understand the discursive characteristics that serve to include climate change in reporting or exclude it, and to explain the underlying mechanisms that make the connection between wildfires and climate change appear either frequently or sparsely in media.

On foreign, domestic, and cultural factors

This study focuses on domestic media's coverage of foreign wildfires. In this respect, there is quite a lot of research about domestic reporting on domestic wildfires, for example, about US media's coverage of US wildfires (Morehouse & Sonnett 2010), or Swedish media's coverage of Swedish wildfires (Färm et al. 2016), but less about what characterizes domestic media's coverage of wildfires happening in other countries and parts of the world. Here, in addition to the usual barriers to integrating scientific discourse on climate change into the media (Berglez 2011), what needs to be considered is the foreign dimension of the event, in the sense of how the very distance might impact on the reporting and on how the issue of climate change is handled.

To begin with, the coverage of a distant wildfire is dictated by a similar logic as in *foreign reporting* about a terrorist attack or a train accident, that is, by established news value criteria (Galtung & Ruge 1965; Harcup & O'Neill 2001). In order to become news in the first place, wildfires need to include such things as novelty, elements of a conflict, human suffering, and drama (Boykoff 2012, p. 100), or involve elites and/or celebrities (Anderson 2011). Strong dramatization of a wildfire might push the climate change problem off the news agenda altogether, but it might just as well serve as a way to present the consequences of climate change in a more engaging way.

Another important aspect is *geographical proximity/distance* (Chang et al. 1987). A Greek wildfire is more likely to appear in the Swedish news media than an Argentinean one, because of the shorter distance between Sweden and the Mediterranean region. The distance might also lead to similar events around the world being covered differently. For example, the greater the distance, the more likely that media will not be able to produce their own material, and instead will have to rely on foreign sources/media or wire services (Lewis et al. 2008). This, in turn, might result in the domestic reporting being influenced by media from other parts of the world, and being colored by their particular values and interests (Anderson 2016) as well as their stance on climate change.

A further aspect is *cultural proximity/distance*, meaning that two wildfires in two different parts of the world might be covered to different extents and/or in different ways for reasons of cultural ties (cf. Galtung & Ruge 1965, p. 67). For example, the USA is far from Sweden, geographically speaking, but because Sweden is highly influenced by US culture (Flew 2007, pp. 124–128; Sparks 2012), wildfires in the USA may be viewed as more important than wildfires in such geographically proximate places as Romania or Portugal. However, the relation between cultural proximity/distance and climate change is complex. For example, strong cultural identification with another nation may instead serve as a barrier to the inclusion of a climate change angle. This is because greater cultural identification leads to a greater emphasis on human aspects, such as the immediate consequences for victims, and makes it less likely that reporting will include abstract causal thinking on the potential impact of climate change. Another side of the cultural proximity/distance matter is the potential problem of stereotypes and prejudices (Wasserman 2011). For example, Swedish media may take for granted that there is little concern or knowledge about climate change in some developing countries, which could then influence the reporting or lead to the removal of such a perspective.

A closely related cultural dimension consists of *domestications* (Olausson 2014; Boykoff 2012, p. 138), meaning ways in which the domestic (national) culture serves as a framework for interpreting the rest of the world. To satisfy the home audience, in covering a foreign wildfire media might highlight domestic interests; victims (“Were some of our ‘own’ people among the casualties?”); national experts; or rescue services. In a similar vein, a *domestic ideology and/or knowledge* tends to be projected onto the surrounding world (Carvalho 2007). For example, widespread awareness about climate change in a nation and its media makes it easier to adopt a climate change perspective when covering extreme events abroad. In other words, strong support for the IPCC “at home” ought to increase the likelihood of climate change being mentioned in the reporting about foreign wildfires. Furthermore, *domestic experiences* of an extreme event could lead to cultural identification across borders with people who are experiencing similar things (Olausson 2009b, p. 148). Thus, domestic media might focus on how “they,” in this or that distant country, presumably are going through the same crisis and disastrous effects of climate change as “we” once did (cf. Krosnick et al. 2006).

The above-mentioned theory can be of help in interpreting and explaining domestic media’s reporting of foreign wildfires. However, the media outcomes should be viewed as complex combinations of basic news values, cultural proximity/distance, and domestications. When it comes to climate change, the media practices, be they a dramatization of an event or a domestication, potentially work in both directions. They either suppress/exclude a climate change perspective or help to bring it into the coverage, depending on the context.

The research questions

The purpose of this study is thus to examine domestic media’s coverage of foreign wildfires from the perspective of climate change. Analytical attention is given to Swedish media’s coverage of wildfires in three parts of the world: Australia, the Mediterranean region, and the USA. Sweden is associated with strong support for climate science across political and institutional boundaries (Bäckstrand & Kronsell 2015). In Swedish media, this is visible in the “nationalization” of climate change, whereby Sweden is depicted as a “green” role model for other nations, and through an individualization discourse, emphasizing the duty of the individual to go green (Berglez et al. 2009). But, despite there being broad knowledge about the problem of climate change in Sweden (Berglez & Olausson 2014), the complexity of the causal relationship between wildfires and climate change means that one cannot take for granted that Swedish media will mention the climate change issue in the case of foreign wildfires. Therefore, the first research question is the following:

RQ 1: In their coverage of foreign wildfires, do Swedish media mention the climate change issue, and if so, to what extent?

RQ2 concerns the assumption that, because of factors such as cultural proximity/distance and/or domestications, domestic media do not treat all foreign wildfires equally:

RQ2: Concerning the mentioning of the climate change issue in the coverage of foreign wildfires, are there any differences depending on which countries the wildfires occur in, and if so, to what extent and in what ways?

The media coverage of foreign wildfires is examined before and after the 2014 Västmanland wildfire. Sweden’s largest wildfire in modern times, it burned an area of approximately 15,000 hectares and caused one fatality. Climate change popped up in Swedish media and the public debate as a “grand explanation” of the Västmanland wildfire (Rummukainen 2014), though it also met with some criticism (see Färm et al. 2016). The question, however, is

whether this extreme event “at home” also boosted the prevalence of the climate change issue in the covering of foreign wildfires:

RQ3: Is there an increase in the mentioning of climate change in the coverage of foreign wildfires after the 2014 Västmanland wildfire, and if so, to what extent and in what ways?

The article is structured in four parts, the first being this introduction and the second giving a brief overview of previous research. The third part outlines the material and methods of the study: Swedish newspapers’ reporting of wildfires and climate change in three continents, which is analyzed quantitatively (frequencies) and qualitatively (a combination of frame theory and discourse analysis). The fourth part presents the results, beginning with the quantitative characterization of the Swedish media coverage and then moving on to the qualitative analysis. The fifth section concludes the presentation of results and discusses the foreign, domestic and cultural factors influencing climate change reporting in the context of extreme events.

Previous research

There are some studies examining media’s coverage of wildfires. In his analysis of Greek newspapers’ coverage of the 2007 wildfires in Greece, Hovardas (2014) examines how the reporting is intertwined with, and influenced by domestic political conditions, and is connected to pre-election strategies. Furthermore, it is possible to find media studies about wildfires which focus on the environment in a broader sense. For example, Smith’s (1989) examination of network television stories from the 1988 Yellowstone Park wildfires presents relevant insights into the power of commercial media logic, in which the events are covered in a “stylized and stereotyped way” (p. 1), focusing on “brave firefighters” instead of the ecological ramifications of the events.

One of the few media analyses of wildfires in relation to climate change is Morehouse and Sonnett’s (2010) quantitative study of four US newspapers. Some interesting variations are identified in the extent to which different media outlets connect wildfires to climate change, but the authors do not explore these findings in any deeper sense. There are studies focusing on the role that different kinds of extreme weather and/or events, including wildfires, play in the issue attention cycle, in relation to climate change. Ungar’s (1999) media study demonstrates that the US media’s coverage of wildfires in 1988 (primarily of the Yellowstone fire) helped to establish climate change on the political agenda that year, which is also the peak year for climate change in his longitudinal study stretching from 1968–1996 (Ungar 1999, p. 139). Observations of how various extreme events led to a greater focus on climate change have later been supported by other studies (Weingart et al. 2000; Boykoff & Boykoff 2007; Boykoff 2012, pp. 90–91). However, in their longitudinal analysis of the coverage of climate change in Australian, German and Indian print media during the period 1996–2010, Schäfer et al. (2014) conclude that, “contrary to many assumptions, weather and climate characteristics [including extreme events] are not important drivers of issue attention in all countries (Schäfer et al. 2014, p. 169).

Thus, what is still lacking are studies that more deeply examine domestic media’s coverage of foreign extreme events, including wildfires, (RQ1); the role of underlying factors such as geographical and cultural proximity/distance (RQ2); and whether or not a serious wildfire “at home” might stimulate a climate-change perspective in the coverage of similar events abroad (RQ3).

Material and Methods

The empirical material consists of newspaper articles collected from the database *Retriever* during a three-year period. As the intention was to examine a period before and a period after the Västmanland fire in Sweden, which took place in August 2014, we ended up with the following two periods:

Pre-fire-period: February 1, 2013–August 1, 2014 (the 18 month period before the Västmanland wildfire)

Post-fire-period: September 1, 2014–March 1, 2016 (the 18 month period after the Västmanland wildfire)

To be able to more thoroughly analyze potential differences between the reporting from different parts of the world, we decided to focus on a number of selected countries/regions. More specifically, we identified three countries/regions on three continents, all of which were affected by wildfires during the selected three-year period: Australia, the Mediterranean region (Greece and Spain only), and the USA. In *Retriever*, which includes entire newspapers (i.e. all pages), we adopted a broad perspective on climate change reporting by collecting all types of articles from the largest national and local news media outlets in Sweden – in total 255 newspapers. As the aim of the content analysis was to capture the extent of climate change oriented discourse, the search words in Table 1 were applied:

<p>“Wildfire*” (“US*” OR “California*”)</p> <p>“Wildfire*” (“US*” OR “California*”) (“climate*” OR “global warming” OR “carbon dioxide*” OR “greenhouse gas*”)</p> <p>“Wildfire*” (“Mediterranean*” OR “Greece*” OR “Spain*” OR “Greek” OR “Spanish”)</p> <p>“Wildfire*” (“Mediterranean*” OR “Greece*” OR “Spain*” OR “Greek” OR “Spanish”) (“climate*” OR “global warming*” OR “carbon dioxide*” OR “greenhouse gas*”)</p> <p>“Wildfire*” AND “Australia*”</p> <p>“Wildfire*” AND “Australia*” (“climate*” OR “global warming” OR “carbon dioxide*” OR “greenhouse gas*”)</p>

Table 1: The selection of search words and their combinations

As Swedish media might cover Californian wildfires without mentioning the country (i.e. USA), “California” was added as search word. Similarly, because media information about Greek and Spanish wildfires might exclude the mentioning of “Greece” and “Spain”, the adjective forms “Greek” and “Spanish”, as well as the term for the region, “Mediterranean,” were added. In order not to miss relevant articles, the term “climate change” was complemented with other relevant terms such as “global warming” and “carbon dioxide.” The resulting corpus was subjected to coding, during which the following question was asked: “Does the article involve a wildfire or wildfires in Australia, the Mediterranean region (Greece or Spain), or the USA? Yes/No,” which led to irrelevant articles being excluded. The remaining articles were subject to a second question: “Does the article include climate change or related terms? Yes/No.” *Retriever* has different commercial agreements with various media companies and newspapers. For validity reasons, it was necessary to exclude 14 newspapers due to shifting number of accessible articles from one year to another, and/or a lack of accessibility for some of the years. In the material, similar or almost similar articles are quite common. This is because one and the same media house might own several different newspapers, which collaborate and/or have access to similar news material.

The empirical material can be divided into two groups of articles. The first group can be defined as crisis reporting, focusing on the day-to-day developments and thereby resembling traditional mainstream foreign correspondence. The second group focuses on extreme weather/events, wildfires being one of many possible examples. Here, the coverage tends to be more science oriented and it is therefore primarily associated with the science pages, although contributions may also appear in editorials, for example. Both groups of articles may include political discourse in the form of comments by policy-makers, politicians, etc. When it comes to genre, early in the analysis process, we noticed the often intersecting (Boykoff 2012, p. 110) or hybridized character of the media content. A story dominated by science discourse, and therefore perhaps located in the science section and authored by a science journalist, might still include elements of crisis reporting, for instance by mentioning the ravaging of a landscape by a wildfire or emphasizing the political urgency of doing something about global warming. Or an article written by a foreign correspondent/general reporter, mainly centered on the drama and devastation wrought by the fire and the actions of the firefighters, might be complemented with climate-scientific and policy-oriented reasoning.

The quantitative study focusing on frequencies has been combined with a qualitative analysis guided by an abductive approach. In combining frame and discourse analysis (cf. Olausson 2009a), the aim is to examine more deeply the role of foreign news values/sources, cultural proximity/distance and domestications. Four relevant frames have been identified, all of which all demonstrate “interpretative storylines that set a specific train of thought in motion, communicating why an issue might be a problem, who and what might be responsible for it, and what should be done about it” (Nisbet 2009, p. 15; Johnson-Cartee 2005). In a small number of selected articles, these four frames have been analyzed discursively (Fairclough 1995), although not micro-linguistically. The focus is on how “complexes of clauses” (sentences) (Fairclough 1995, pp. 104–105) in the coverage, often involving relations between the event, the actors, and the use of sources, might set the “specific train of thought in motion” (Nisbet 2009, p. 15).

Results

RQ1 concerns the extent to which the studied Swedish newspapers included the problem of climate change in their coverage of foreign wildfires during the selected 36-month period:

Total number of articles about wildfires in the three foreign regions	Number of articles connecting wildfires to climate change
330 (100%)	37 (11%)

Table 2: Number of articles including mention of the climate change issue

About every tenth article mentions climate change, which means that most articles do not mention this problem whatsoever. This is in line with results from other media studies, such as Schäfer et al. (2014). Even if knowledge about climate change is widespread in Sweden and in Swedish media, in most cases wildfires are not associated with climate change. The comparison of the three different regions (RQ2) demonstrates that climate change is present to a relatively large extent in articles about wildfires in Australia (35%), to some extent for the Mediterranean region (10%), and hardly at all for the USA (4%):

Wildfire regions	Mention of “climate*”, “global warming”, “carbon dioxide*” OR “greenhouse gas*”
Australia	25/71 (35%)
Mediterranean region	3/31 (10%)
USA	9/228 (4%)

Table 3: Media comparison of the three foreign regions

The total number of articles about wildfires in the USA is considerably larger (228 articles) than for Australia (71) and the Mediterranean region (31). Even if wildfires were much more common in the USA than elsewhere, this result would more likely have to do with the fact that, generally, the USA and its media are a great source of news for Swedish media. The USA is thus more important/influential than the geographically proximate but culturally more distant (Latin) Mediterranean region, and the culturally proximate but geographically distant Australia. Another reason for the very high number of articles is extensive media focus on particular US wildfires, such as the 2013 fire in Yosemite National Park, California, which Swedish media covered extensively for a period of time.

RQ 3 concerns whether or not the domestic (Swedish) experience of the Västmanland wildfire in the late summer of 2014 left any traces in Swedish coverage of foreign wildfires, in the form of a greater focus on climate change. Table 4, below, shows the frequency of climate change oriented discourse 18 months before and 18 month after the Västmanland wildfire:

Media coverage of wildfires in the three regions (Australia/Mediterranean region/the USA) 18 months before and after the Västmanland wildfire in Sweden (Aug 2014)	Mention of “climate*”, “global warming”, “carbon dioxide*” OR “greenhouse gas*”
Pre-fire-period	16/228 (7%)
Post-fire-period	21/102 (21%)

Table 4: Articles with a climate change component before and after the Västmanland wildfire

Consequently, in the wake of a domestic event, the Västmanland wildfire, there is an increase in the number of articles including mention of the climate change issue. Finally, Table 5, below, presents the figures for the three regions separately:

Wildfire regions	Pre-fire-period (February 1, 2013–August 1, 2014)	Post-fire-period (September 1, 2014–March 1, 2016)
Australia	16/44 (36%)	9/27 (33%)
Mediterranean region	0/12 (0%)	3/19 (16%)
USA	0/172 (0%)	9/56 (16%)

Table 5: Articles including mention of the climate change issue before and after the Västmanland wildfire, comparing the coverage of foreign wildfires from the three foreign regions.

Before the Västmanland wildfire event, the connection between wildfires and climate change is non-existent for the USA and the Mediterranean region, but after this domestic event, the problem of climate change begins to pop up. The figures for Australia, on the other hand, remain relatively unchanged throughout the two periods.

The above results generate some questions: Why are climate change and/or related terms mentioned much more often in connection to Australian wildfires than to the Mediterranean region and the USA? More specifically, what happens with the media coverage after the Västmanland wildfire? To find ways to approach these questions, the qualitative study presented below goes more deeply into the form and content of the media material.

From anthropocentric to global framing

The specific queries listed above that arose in the quantitative analysis helped us analytically capture the anthropocentric, elite conflict, cross-national consent, and global frames. However this does not exclude the possibility that other frames are present in the reporting. The four identified frames – which will be exemplified by selected articles and analyzed discursively in terms of the relation between the covered event, actors and sources – are thus relevant to answering the following question: In what ways do domestic media either include or exclude the climate change issue in connection to foreign wildfires?

The anthropocentric frame

A clear majority of the articles about wildfires (89%), regardless of whether they concern events in Australia, the Mediterranean region or the USA, do not discuss climate change whatsoever. Such reporting might be conceptualized as anthropocentric framing, which is characterized by a one-sided concentration on human affairs and short-term risks (here in the context of wildfires or other extreme events) thereby suppressing environmental discourses, including the climate change issue (cf. Smith 1989). The clearest examples tend to derive from foreign news coverage, such as the below case involving the staging of a wedding photograph in the midst of a fierce wildfire in Oregon, USA. The main characters in the story are a bride and a groom, while the wilderness and an out-of-control fire serve as a dangerous but aesthetically sublime background (cf. Allan 2002, p. 98):

“Flame of Love” (*Norran*, June 11, 2014)

A newly married couple in Oregon, USA, pose for their wedding portrait with a forest fire in the background. The priest had to rush through the wedding ceremony because the fire was approaching. Altogether approximately 16 square kilometers of forest were devastated by the fire outside the town of Bend, but no one was harmed. The wedding guests were evacuated and the party continued in the city park. TT [Swedish wire service]

The anthropocentric frame is a natural consequence of the application of basic values such as dramatization and personalization, usually produced by general journalists, which makes a climate change angle less likely. Further stimulating its prevalence is the inclusion of *domestications*, in terms of the emphasis on national interests. This is evident in the coverage of wildfires in the Mediterranean region, where the media information exhibits strong cultural bias through its exclusive concern for Swedish citizens in Greece or Spain. Because these countries are very popular holiday destinations for Scandinavians, the central actors are the Swedish tourists and their critical situation:

“Tourists forced to flee” (*Aftonbladet*, July 29, 2013)

- “Wildfires rage in the Mediterranean”
- “Largest forest fire in 20 years”

/.../

Alexander Decerein, 36, from Mölnlycke is with his family in Illetas near Palma. On Friday he smelled smoke and noticed that helicopters were flying back and forth over the area.

– Now it’s really big. A total of ten planes are going back and forth water-bombing, he says.

The family vacations in Mallorca every summer, but have never experienced anything like it.

/.../

The Swedish travel agencies Ving and TUI say they have no plans at present to evacuate guests from Mallorca.

– There’s no threat to our tourist destinations right now, but the smoke is visible from rather many locations along the coast, says *Ving’s* Anna Hagberg to TT.

Thus, the seemingly abstract climate change problem cannot “compete” with the combination of *human drama* and *cultural proximity*, as shown by how the article focuses instead on the immediate situation for the Swedish families (the family vacations in Mallorca every summer) from well-known places at home (“Mölnlycke”) and the actions of well-known Swedish travel agencies (*Ving*).

The elite conflict frame

To understand why climate change de facto does occur in the media, not least in the Australian case, one needs to pay attention to the relevance of the elite conflict frame, which presents wildfires as an area of conflict in which the elite dwell on the role of climate change. Articles about Australian wildfires frequently refer to a domestic political conflict between climate scientists/ENGOS/IPCC, on the one hand, and climate skeptics, including parts of the Australian political elite headed by Prime Minister (2013-15) Tony Abbott, on the other hand (cf. Bacon & Nash 2012). Thus, as involvement of conflicts and elites are two basic news values criteria, the emphasis on a boxing match between powerful actors becomes climate change’s ticket to large-scale media attention (cf. Nisbet 2009, p. 18), as in the following foreign news story:

“Risk of disaster averted in the wake of the fires” (*Hallandsposten*, October 24, 2013)

AUSTRALIA. The greatest disaster risk has been averted since 1,400 Australian firefighters managed to gain control over three large fires in the Blue Mountains west of Sydney. But it’s still too early to say that the danger is over.

/.../

As of Wednesday 72 fires were raging. To date 120,000 hectares have been ravaged, and over 200 homes destroyed. One person has died in connection with the fires.

Australian Prime Minister Tony Abbott denies that the bushfires can be linked to climate change, according to AFP, and accuses the UN climate chief Christiana Figueres Olsen of “talking through her hat.” Figueres Olsen said the day before that the inferno outside Sydney could not yet be directly linked to global warming, but that there are clear links between wildfires and rising temperatures. TT

/.../

The next example is a more personal chronicle that reflects on climate change in relation to wildfires in Australia, and also touches on the role of the political elite (Prime Minister Abbott):

“Chemistry student and fire warden in combination” (*Hallandsposten*, April 1, 2014)

The UN climate panel says that our emissions are causing more, longer and more intense heat waves.

In addition to reduced harvests, this leads to large wildfires.

The fires release greenhouse gases, causing further warming of the planet. A vicious circle. Australia is strongly afflicted.

It's ironic that the nation is both one of the very worst climate offenders and has a prime minister who considers it urgent to repeal carbon dioxide taxes.

/.../

What is puzzling is the absence of similar discourse in the case of the USA, which like Australia is suffering from conflict between climate scientists and skeptics (Boykoff & Boykoff 2004; Dunlap & McCright 2015). A potential media-theoretical explanation is that, during this period of time, the Australian political elite – including the prime minister – was taking part in a fierce climate change debate, also in connection to wildfires, much more so than their counterparts in the Mediterranean countries and the USA. Due to its high news value, the antagonistic Australian elite discourse on climate change recurrently appears in both Australian media and in international wire services' coverage of wildfires. As Australia is so geographically distant, these media outlets become important sources for Swedish editors and journalists as well (see AFP in the first example above), with the consequence that more or less similar framings of Australian wildfires end up in Swedish media and ultimately reach the Swedish public. What also makes climate change more prominent in the Swedish coverage of Australian wildfires is that the climate change issue in general seems to be more prevalent in Australian media (see Schmidt et al. 2013) than in US, Greek and Spanish media, and thus leaves an imprint in the international news reporting from “down under.”

The cross-national consensus frame

Like the elite conflict frame, the cross-national consensus frame facilitates understanding of the prevalence of the climate change issue, and thus is primarily found in the coverage of Australian wildfires. It is characterized by media reporting that somehow *unites* the strong domestic (Swedish) support of IPCC's general conclusions on the anthropogenic causes of climate change, and corresponding support in Australia. Thus, in harmony with what the Swedish climate change discussion usually looks like, this kind of framing excludes climate skeptical voices, which means that representatives of mainstream climate science receive undivided attention:

“Australian fires reduce air quality” (*Upsala Nya Tidning*, October 22, 2013)

AUSTRALIA: Firefighters combated an enormous fire in the Australian state of New South Wales on Monday. Authorities warned that it could combine with another fire and create a gigantic bushfire (subhead).

/.../

FACT BOX

Bushfires are a common occurrence in Australia, the world's driest inhabited continent. The four final months of last year were exceptionally warm. The situation was made worse by very dry weather, because the monsoon was weak and arrived late.

Scientists believe that climate change, with gradually increasing temperatures worldwide, is part of the explanation. TT-AFP

In the next example, the scientists are presented in a more personal way, and climate change is ascribed greater scientific certainty (It's a clear confirmation...”):

Fires rage after a record-hot year (*Metro Stockholm*, January 1, 2015)

Australia 2014 – the third-warmest year. At the same time as hundreds of firefighters battle bushfires in three states, it has been announced that 2014 was the third-warmest year yet in Australia. (subhead)

/.../

Seven of the ten warmest years in Australia have been recorded since 2002, and are a sign of climate change, according to Sarah Perkins, research assistant at University of New South Wales.

– It's a clear confirmation of climate change here and now. The warm conditions have contributed to yet another early start of the fire season, she says, adding that factors such as wind and rain also play a part. AFP TT

As a suggestion, in this context the cross-national consensus frame builds on: (a) a foundation of ideological support “at home” (Sweden) for mainstream climate science, which helps to draw attention to the role of global warming in Australian wildfires; and (b) the identification of a climate science source in Australian media and/or an international wire service that could be included in the Swedish reporting. The crisis reporting quoted above is produced by general reporters who are not science journalists and probably lack deeper knowledge about climate change. But, the ideological back up – the strong Swedish support of the idea that climate change is one of the most important challenges of our times – in combination with the occurrence of climate science sources in available international media material, above represented by AFP, paves the way for the inclusion of the climate change problem in news reporting. Thus, without (a), it is less likely that (b) will happen, in the sense that the Australian climate scientists cited above would instead be overlooked or omitted in the editing process (cf. Anderson 2016). Further, general reporters include foreign sources that confirm the existing domestic support for mainstream climate science. But, if such foreign sources, i.e. (b), are not found in the news information deriving from AFP, Reuters, or the like, the outcome may instead be anthropocentric framing, focusing solely on the human drama of the wildfire.

The global frame

The global frame helps us to understand the media reporting after the Västmanland wildfire, and the significant increase in the mentioning of climate change or related ideas. Rather than being expressed in terms of “more of the same,” the increase is primarily observable as a *new* way of framing foreign wildfires, namely global framing. Because this frame is not observed before the Västmanland wildfire, it is thus possible that it was boosted and/or generated by the domestic extreme event. What characterizes this frame is its transnational focus on wildfires, in which events from several countries and continents are covered and/or discussed simultaneously. In this context, the foreign wildfires are contextualized through the Swedish wildfire and vice versa. The Mediterranean and US wildfires, which before the Västmanland fire were restricted to anthropogenic framing, are now drawn into a global way of understanding wildfires, with climate change as the common denominator. Global framing thus appears in semi-scientific articles, focusing on the recent global development of extreme weather and events both from an “anthropocentric” and an ecological perspective in which the discourse, in most cases, is embedded in statements from expert sources:

“The extreme weather is here is here to stay” (*GT*, August 27, 2015)

Sweden and Norway have become wetter and warmer, and face greater risks. Therefore, the authorities are currently preparing for how extreme weather will affect Sweden.

– Floods are the most frequent and obvious example, says Professor Björn-Ola Linnér at the Centre for Climate Science and Policy Research. (subhead)

2014 was an extreme weather year for Sweden – with both a heat wave and floods. The large forest fire in Västmanland is mentioned as an example of how extreme weather can pose a great risk for residents.

– The combination of dry weather and winds caused the fire to spread in a way we usually see down in the Mediterranean, or in Australia and California, says Jan Wisén [assistant department head at the Swedish Civil Contingencies Agency, MSB].

/.../

The above subhead describes floods as the most concrete example of how climate change might generate more extreme weather/events, but later in the text, the Swedish wildfire and similar fires abroad are drawn into a similar reasoning. What most articles characterized by the global framing have in common is that they were published in the summer of 2015, when a year had passed since the Västmanland wildfire:

“New disasters follow in the wake of climate change” (*Aftonbladet*, August 8, 2015)

/.../

This year no Swedish wildfires have generated disaster headlines. For all its dreariness, the rainy summer has its advantages.

In other parts of the world fires rage, in places where we’re used to fires breaking out every summer. The week began with dramatic scenes from drought-stricken California. The largest fire, Rocky, has torched an area twice that of the Västmanland fire.

To speak about extreme weather and climate change in the same breath always requires caution. Weather is variable, and always has been. The hot and dry weather of last summer has been replaced by this year’s rain and wind. In itself, this says nothing about long-term changes.

Even so, we know that the climate is changing. Glaciers today are smaller than ever before during the 120 years that measurements have been carried out, and global temperatures broke records during the first half of this year.

We also know that climate change will lead to more extreme weather. More wind, more rain and perhaps also more droughts. That means more storms, more floods and – that’s right – more fires.

/.../

The following example includes a cross-national comparison of wildfires from the perspective of size, and points out the importance of cultural identification – that domestic experience of a wildfire makes it easier to understand similar events abroad (“The news hits closer to home.”):

“The fire, neither natural disaster nor fiasco” (*VLT*, August 4, 2015)

In California an even larger area was ravaged by fire than in Västmanland, over 20,000 hectares compared to just under 14,000 hectares here. The course of events appears similar; fires spread quickly in a day or so.

The news hits closer to home when there are bitter local experiences of the harm a wildfire can cause and the difficulty of stopping it.

The global framing of wildfires involves adopting a transnational outlook on reality that shortens the distance between what occurs at home and abroad (Berglez 2013), showing how similar events take place on different continents simultaneously and implying that they might have the same grand explanation (anthropogenic greenhouse gas emissions).

Concluding discussion

This study examines domestic media’s coverage of foreign wildfires from a climate change perspective. Foreign news values, the use of foreign sources, and practices of cultural proximity/distance and domestications, influence reporting. As a consequence, wildfires in different parts of the world are covered differently in terms of scope, form and content, with the coverage from Australia coming across as much more climate change oriented than that from the Mediterranean countries and the USA.

Based on our empirical results, including the four identified frames, it is possible to formulate a model for studying foreign, domestic and cultural factors in climate change reporting in connection to wildfires and possibly other extreme events such as droughts and floods (Table 6). The idea is that one needs to consider textual, internal (meso-level) and external (sociocultural) influences, and their relations (cf. Fairclough’s model 1995, p. 59):

<p>Sociocultural level</p>	<ul style="list-style-type: none"> • The scientific and political status of the climate change issue in the home country and its institutions • The scientific and political status of the climate change issue in the foreign country/region being covered • Domestic experiences of extreme events
<p>The media institutional level</p>	<ul style="list-style-type: none"> • The scientific and political status of the climate change issue within media as an institution • Available resources/knowledge in environmental issues/climate science • Available resources for foreign journalism vs. subscription of national or foreign wire services • Inbuilt news value routines and media cultural “rituals” (domestications, etc.)
<p>The textual level</p>	<ul style="list-style-type: none"> • The generated media content

Table 6: The foreign, domestic and cultural factors in climate change reporting

The empirical results need, however, to be further examined from various perspectives and with different methods. To begin with, the interpretations presented above could be explored through interviews with editors and journalists, while a larger sample, covering a longer period than three years, might enable a more full-fledged content analysis including variables such as type of source, actors and organizations, as well as the four identified frames. One thing that needs to be examined more thoroughly is the “never-in-some-countries” phenomenon, namely where domestic media seldom or never mention climate change in the case of extreme events in particular countries; the “only-in-particular-countries” phenomenon, where the causal relation between an extreme event and climate change frequently and

prominently appear in the case of particular countries; and the “first at home, then abroad” phenomenon, where extreme events “at home” pave the way for greater climate change “sensitivity” in the reporting of similar events abroad. It would also be interesting to compare media coverage of different kinds of extreme events and weather.

Finally, the results ought to be commented on from a more normative point of view. The relative absence of a climate change perspective in reporting on Mediterranean and US wildfires could serve as an example of how domestic media (in this case Swedish) helps to reproduce other nations’ cultural politics of climate change (Boykoff 2012). By systematically suppressing the potential causal link between wildfires and anthropogenic greenhouse gases, Swedish media indirectly promotes the suppression of climate change discourse in these countries/regions as well as at home. The media treats the problem of climate change as if it were an *internal affair* rather than a common problem for humankind. Ideally, domestic media throughout the world need to develop their own independent *gaze*, receptive to the consequences of climate change, when covering foreign extreme events. This requires an ability not to be overly influenced by the scientific and political status of the climate change issue in the covered foreign country or region, as well to be able to make oneself less dependent on “domestic experiences” to be able to understand what is going on in the outside world.

References

- Allan, S. (2002). *Media, risk and science*. Buckingham: Open University Press.
- Anderson, A. (2011). Sources, media and modes of climate change communication: The role of celebrities. *WIREs Climate Change*, 2, 535-546.
- Anderson, A. (2016). Source influence on journalistic decisions and news coverage of climate change. *Oxford Encyclopedia of Climate Change Communication* DOI: 10.1093/acrefore/9780190228620.013.356.
- Bacon, W. & Nash, C. (2012). Playing the media game: The relative (in)visibility of coal industry interests in media reporting of coal as a climate change issue in Australia. *Journalism Studies*, 13, 243-258.
- Bäckstrand, K. & Kronsell, A. (2015). Conclusion. In K. Bäckstrand & A. Kronsell (Eds.), *Rethinking the green state: Environmental governance towards climate and sustainability transitions* (pp. 241–256). Abingdon: Routledge
- Berglez, P. (2011). Inside, outside, and beyond media logic: Journalistic creativity in climate reporting. *Media, Culture and Society*, 33, 449–465.
- Berglez, P. (2013). *Global journalism. Theory and practice*. New York: Peter Lang.
- Berglez, P. & Olausson, U. (2014). The post-political condition of climate change: An ideology approach. *Capitalism, Nature, Socialism*, 25, 54–71.
- Berglez, P., Höijer, B. & Olausson, U. (2009). Individualization and nationalization of the climate issue. Two ideological horizons in Swedish media. In T. Boyce, & J. Lewis (Eds.), *Media and climate change* (pp. 221–223). New York: Peter Lang.
- Boykoff, M.T. (2012). *Who speaks for the climate? Making sense of media reporting on climate change*. Cambridge: Cambridge University Press.
- Boykoff, M.T. & Boykoff, J.M. (2004). Bias as balance: Global warming and the U.S. prestige press. *Global Environmental Change*, 14, 125–136.
- Boykoff, M.T. & Boykoff, J.M. (2007). Climate change and journalistic norms: A case-study of US mass-media coverage. *Geoforum*, 38, 1190–1204.
- Carvalho, A. (2007). Ideological cultures and media discourses on scientific knowledge: Re-reading news on climate change. *Public Understanding of Science*, 16, 223–243.

- Chang, T.K., Shoemaker, P.J. & Brendlinger, N. (1987). Determinants of international news coverage in the U.S. media. *Communication Research*, 14, 396–414.
- Dunlap, R.E. & McCright, A.M. (2015). Challenging climate change: The denial countermovement. In R.E. Dunlap & R.J. Brulle (Eds.), *Climate change and society: Sociological perspectives* (pp. 300–322). Oxford: Oxford University Press.
- Fairclough, N. (1995). *Media discourse*. London: Edward Arnold.
- Flannigan, M., Stocks, B. & Turetsky, M. (2009). Impacts of climate change on fire activity and fire management in the circumboreal forest. *Global Change Biology* 15, 549–560.
- Flew, T. (2007). *Understanding global media*. New York: Palgrave.
- Färm, K-A., Bystedt, A-L., Nyström, K. & Nord, L. (2016). Det brinner överallt. Medierapporteringen av skogsbranden i Västmanland (report No. 29). Sundsvall: Demicom.
- Galtung, J. & Ruge, M.H. (1965). The structure of foreign news. The presentation of the Congo, Cuba and Cyprus crises in four Norwegian newspapers. *Journal of Peace Research*, 2, 64–91.
- Gill, A.M., Stephens S.L. & Geoffrey, C.J. (2013). The worldwide ‘wildfire’ problem. *Ecological Applications*, 23, 438–454
- Harcup, T. & O’Neill, D. (2001). What is news? Galtung and Ruge revisited. *Journalism Studies*, 2, 261–280.
- Hovardas, T. (2014). ‘Playing with fire’ in a pre-election period: Newspaper coverage of 2007 wildfires in Greece. *Society & Natural Resources* 27, 689–705.
- IPCC (2014). *Climate change 2014. Impacts, adaptation, and vulnerability. Part A: Global and sectoral aspects*. Working group II contribution to the fifth assessment report of the Intergovernmental Panel on Climate Change. <https://ipcc.ch/report/ar5/wg2/>
- Johnson-Cartee, K.S. (2005). *News narratives and news framing. Constructing political reality*. Lanham, MD: Rowman & Littlefield.
- Krosnick, J.A., Holbrook, A.L., Lowe, L. & Visser, P.S. (2006). The origins and consequences of democratic citizens’ policy agendas: A study of popular concern about global warming. *Climatic Change*, 77, 7–43.
- Lewis, J., Williams, A. & Franklin, B. (2008). Four rumours and one explanation. A political economic account of journalists’ changing news gathering and reporting practices. *Journalism Practice*, 2, 27–45.
- Lidskog, R. & Sjödin, D. (2016). Extreme events and climate change: The post-disaster dynamics of forest fires and forest storms in Sweden. *Scandinavian Journal of Forest Research*, 31, 148–155.
- Liu, Y., Stanturf, J. & Goodrick, S. (2010). Trends in global wildfire potential in a changing climate. *Forest Ecology and Management*, 259, 685–697.
- Nisbet, M.C. (2009). Communicating climate change: Why frames matter for public engagement. *Environment: Science and Policy for Sustainable Development*, 51, 12–23.
- Morehouse, B.J. & Sonnett, J. (2010). Narratives of wildfire: Coverage in four U.S. newspapers, 1999–2003. *Organization & Environment*, 23, 379–397.
- Olausson, U. (2009a). Global warming – global Responsibility? Media frames of collective action and scientific certainty. *Public Understanding of Science*, 18, 421–436.
- Olausson, U. (2009b). Identitet. In P. Berglez & U. Olausson (Eds.), *Mediesamhället. Centrala begrepp* (pp. 137–155). Lund: Studentlitteratur.
- Olausson, U. (2014). The diversified nature of ‘domesticated’ news discourse. The case of climate change in national news media. *Journalism Studies*, 15, 711–725.
- Rummukainen, M. (2014, August 8). Klimatforskaren: Risken för skogsbränder ökar i varmare klimat. *Sydvenskan*. p. 6.

- Schmidt, A., Ivanova, A. & Schäfer, M.S. (2013). Media attention for climate change around the world: A comparative analysis of newspaper coverage in 27 countries. *Global Environmental Change*, 23, 1233–1248.
- Schäfer, M., 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, 152–176.
- Smith, C. (1989, August). Brave firefighters, endangered national icons and bumbling land managers: Network TV myths about the 1988 Yellowstone wildfires. Paper presented at the annual meeting of the Association for Education in Journalism and Mass Communication, Washington, DC.
- Sparks, C. (2012). Media and cultural imperialism reconsidered. *Chinese Journal of Communication*, 5, 281–299.
- Tedim, F., Leone, V., & Xanthopoulos, G. (2016). A wildfire risk management concept based on a social-ecological approach in the European Union: Fire Smart Territory. *International Journal of Disaster Risk Reduction*, 18, 138-153.
- Ungar, S. (1999). Is strange weather in the air? A study of U.S. national network news coverage of extreme weather events. *Climatic Change*, 41, 133–150.
- Wasserman, H. (2011). Global journalism studies: Beyond panoramas. *Journalism Studies*, 37, 100–117.
- Weingart, P., Engels, A. & Pansegrau, P. (2000). Risks of communication: Discourses on climate change in science, politics and the mass media. *Public Understanding of Science*, 9, 261–283.
- Westerling, A.L., Gershunov, A., Brown, T.J., Cayan, D.R., Dettinger, M.D. (2003). Climate and wildfire in the Western United States. *Bulletin of the American Meteorological Society*, 84, 595–604.

