

# Global warming—global responsibility? Media frames of collective action and scientific certainty

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The increasing interconnectedness of the world that characterizes the process of globalization compels us to interlink local, national, and transnational phenomena, such as environmental risks, in both journalistic and academic discourse. Among environmental risks of global scope climate change is probably the one receiving the most attention at present, not least in the media. Globalization notwithstanding, national media are still dominated by a national logic in the presentation of news, and tensions arise between this media logic and the transnational character of environmental risks that call for a collective responsibility transcending the borders of the nation-states. This article presents results from studies of the construction of global climate change in three Swedish newspapers. It discusses the media's attribution of responsibility for collective action along an axis ranging from local to national to transnational, and highlights the media's reluctance to display any kind of scientific uncertainty that would undermine the demand for collective action. The results underline the media's responsiveness to the political setting in which they operate and the growing relevance of the transnational political realm of Europe for the construction of news frames on global climate change in European national media.

**Keywords:** climate change, news media, mitigation, adaptation, responsibility, scientific certainty, framing theory, critical discourse analysis, transnational journalism.

## 1. Introduction

“The notion of globalization has become the leitmotif of our age” (Held and McGrew, 2000: 1). In the debate on globalization we are constantly reminded of the compression of time and space (Harvey, 1989), and the “intensification of consciousness of the world as a whole” (Robertson, 1992: 8). There is nothing new about transnational processes per se. Capital, people, commodities, and ideas have always circulated across borders. The current rapidity of these processes is, however, traceable only to the later part of the twentieth century (Hannerz, 1996). The world has doubtlessly become more and more interconnected—politically, economically and culturally—and there are convincing arguments for transgressing the national outlook, that until now has dominated both journalistic and academic discourse, with the “cosmopolitan vision” (Beck, 2006). It is necessary to study, report, and evaluate local and

national conditions in terms of their global implications and vice versa (Tomlinson, 1999). This is true not least for environmental issues, which, according to McCormick (1991: 196), have become “politicized, popularized and globalized.” Environmental risks are increasingly exceeding society’s capacity to predict, control, geographically locate, and causally attribute (Szerszynski and Toogood, 2000).

Among environmental risks of global scope, climate change is probably the one receiving the most attention at present. Miller (2002) claims that no other environmental issue has been publicized as frequently as global warming, and the issue has not been restricted to scientific, political, or news media discourse, but has also attracted attention within the film industry with recent products such as *The Day After Tomorrow* and *An Inconvenient Truth*. Climate change has become something of a symbol of global environmental risks, as suggested by Edwards (2001: 31, italics in original): “If the idea of a truly *global* environmental problem required a poster child, climate change would certainly top the list of candidates.”

It is not very controversial to claim that the rapid development of communication technologies is a salient ingredient of the process of globalization. International media conglomerates and the convergence between global media and telecommunication systems now link together large parts of the world. This does not mean, however, that the national media logic is losing ground when it comes to the presentation of news. This logic still permeates much of the contents in the form of what Billig (1995) terms banal nationalism. The national horizon is constructed by means of, for instance, the “domestication” (Clausen, 2004; Gurevitch et al., 1991; Riegert, 1998) of news, i.e. the news being in various ways adapted to the national population as it is imagined, and in terms of taken-for-granted conceptions of the world as constituted by self-governing national “islands” rather than being a complex transnational network (Olausson and Berglez, 2007). Tensions arise between the media logic of banal nationalism and the transnational character of climate change, calling for a collective responsibility that transcends the borders of nation-states. The news media—a crucial power in framing environmental issues with significant implications for the democratic processes (Anderson, 1997; Entman, 1993)—have a pivotal role in the attribution of responsibility for both the creation and resolution of societal problems (Iyengar, 1991). As Pellizzoni (2004) claims, the matter of responsibility is of great significance considering the salience of and scientific uncertainties surrounding environmental issues.

Recent studies of the construction of global climate change in US media (Boykoff and Boykoff, 2004; Boykoff, 2008; Brossard et al., 2004; Zehr, 2000), French media (Brossard et al., 2004), and German media (Weingart et al., 2000) demonstrate interesting discrepancies concerning the degree of scientific uncertainty displayed in the European and US media respectively. Adding this line of thought to the question of responsibility while acknowledging the need, underlined by Brossard et al. (2004), for in-depth analyses of the construction of climate change in the news media of various nations for comparative purposes, this article explores the cognitive frames for understanding climate change that Swedish print media offer. By means of critical discourse analyses of three daily newspapers, the article analyzes the media’s attribution of responsibility for collective action on a continuum ranging from local to national to transnational; the results highlight the media’s reluctance to display any kind of scientific uncertainty that would undermine the claim for collective action and emphasize the media’s—American as well as European—responsiveness to the political settings in which they operate.

## 2. Framing theory

The body of research on frames in the news is growing, and the level of interest in this approach to discourse comprehension has markedly increased within the field of media

studies. A frame should, according to Gamson and Modigliani (1987), be seen as an *organizing idea that provides meaning*. The signifying elements of a news story provide a “cognitive window” (Pan and Kosicki, 1993: 59), through which the world attains meaning:

To frame is to *select some aspects of a perceived reality and make them more salient in a communicating text, in such a way as to promote a particular problem definition, causal interpretation, moral evaluation, and/or treatment recommendation* for the item described. (Entman, 1993: 52, italics in original)

Frames are often taken for granted, not subject to any kind of questioning, and are therefore invisible in everyday practice. As noted by Allan et al. (2000: 16), this very “self-evidentness” needs to be recognized. The ideological process of constructing common sense is, of course, closely related to questions of power (cf. Moscovici, 2000), which, according to Carragee and Roefs (2004), has been a neglected aspect of definitions and empirical studies of media frames. A study of frames in the news media needs to be located within a network of cultural, economic, and political factors (Anderson, 1997) since “frames, as imprints of power, are central to the production of hegemonic meanings” (Carragee and Roefs, 2004: 222). However, the focus of much frame analysis has instead been on media *effects*, and the aim has often been restricted to predicting audience response and effects on public opinion (Carragee and Roefs, 2004).

The notion of “framing contests” has been developed in an attempt to direct analytical attention to the power aspects of media frames (e.g. Allan et al., 2000; Anderson, 1997; Gamson and Modigliani, 1989; Miller and Parnell Riechert, 2000). As pointed out by Carragee and Roefs (2004), media frames do not develop in a political vacuum, but are shaped by competing stakeholders or claims-makers such as politicians, organizations, and social movements. Instead of concentrating on presumed effects of certain frames, the focus of study shifted to frame *building*. Recognizing the power of and struggle between various stakeholders and their influence on the process of framing a certain issue is vital and is a central component of the analysis of frames in their totality. It is also important to acknowledge various conventions, such as news criteria and routines in the journalistic context, largely determined by the commercial dimension of news production, that influence the news frames. Equally necessary, though, is to recognize “the various discursive forms by which legitimacy is assigned or withdrawn from a certain dominance- or power relation” (Nohrstedt, 2007: 19).

Newspapers tend, as noted by Gamson and Modigliani (1989), to have their own particular linguistic styles and ideological conventions resting upon miscellaneous taken-for-granted assumptions. The construction of a certain frame is thus not entirely the result of active sponsorship originating directly from powerful claims-makers, nor is it exclusively the consequence of news criteria or journalistic routines. The frame is also the outcome of a “discursive habit” on the part of the journalists who, most often unintentionally, frame the world in certain ways instead of others (van Dijk, 1988; Carragee and Roefs, 2004). It is thus a matter of the deployment of culturally constructed codes that function ideologically, as if they were the creations of nature (Hall, 1995; cf. Carvalho, 2007). Controlling the construction of meaning through “naturalized” codes is the ultimate way of exercising power. The structures of power, having been transformed into common sense, become more or less invisible in the context of everyday life and, as a result, they become well-nigh impossible to recognize, question, or resist (Gramsci, 2000). As Carragee and Roefs (2004) argue, the examination of the relationship between hegemony and media frames also includes the *uncontested* realm of media discourse, resulting in frames appearing as “transparent descriptions of reality, not as interpretations” (p. 223). This does not mean that alternative meanings, challenging hegemonic ideology, should be ignored in the analysis (cf. Nohrstedt, 2007). The ambition of this

study is thus to extend the critical approach to research on media frames by exploring the discursive construction of hegemonic meanings as common sense, i.e. to study the connection between media frames and ideological hegemony.

### 3. Method and materials

The analysis of frames should not be reduced to the analysis of mere story topics or themes. The topic of a news article is only one element among others constituting the media frame as a whole; one particular frame could easily apply to several topics, and one single topic can be the product of more than one frame (Carragee and Roefs, 2004). It is thus vital to increase the level of analytical abstraction in order to grasp the totality of a particular frame as well as to apply sharp analytical devices able to excavate the meaning-bearing elements constituting a frame in its totality. As pointed out by Pan and Kosicki (1993), the prime focus of frame analysis is conceptualizing news texts into empirically operationalizable dimensions, a statement that is specified in Entman's (1993: 52) well-known definition that asserts that frames in the news can be examined and identified by "the presence or absence of certain keywords, stock phrases, stereotyped images, sources of information and sentences that provide thematically reinforcing clusters of facts or judgments."

Definitions such as this aside, there is not much guidance within framing theory when it comes to specific methods for analysis. Much research has deployed quantitative methods of data analysis to render intelligible the nature of media frames. In this article, the analysis is based on qualitative text analysis, which enables a context-sensitive and deepened exploration, fruitful for the study of meaning construction. The method of Critical Discourse Analysis (CDA) has been chosen because of its constructionist, socio-cognitive, and critical epistemological pillars that harmonize well with framing theory as it has been outlined here. CDA centers upon everyday media discourse and is based on diverse theoretical and methodological traditions, from hermeneutics and critical theory to socio-linguistics. In late modernity, relations of power and dominance are maintained through discourse, that naturalizes such relations and makes them part of the natural order of things (Fairclough and Wodak, 1997; Weiss and Wodak, 2003). The aim of CDA is to uncover the implicit or taken-for-granted values, assumptions, and origins of a seemingly neutral, self-evident, and objective news text, and relate it to structures of dominance and power (cf. Berglez, 2000; Nohrstedt, 2007). CDA is thus a relevant method when analyzing a text with a critical interest of knowledge, and a useful tool when trying to capture the ideological and unintended, but nevertheless culturally, politically, and economically dependent aspects of a news text. The analytical tools below (van Dijk, 1988), designed to accomplish the task of unmasking "ideologically permeated and often obscured structures of power ... as well as discriminatory inclusion and exclusion in language use" (Wodak et al., 1999: 8), have systematically been applied on each news item in the sample.

#### *Analytical tools*

Thematic and schematic structure (macro structure):

- Which themes and topics—e.g. statements, discussions, questions, arguments—are granted prominence (in a hierarchal order) in the article as a whole and in each paragraph? Special attention is paid to headlines and introductions where the overarching theme of the article is expressed.

- Which categories—e.g. presentation of the actual event, verbal statements of various actors, consequences of the actual event—are granted prominence (in a hierarchical order) in the article?

Style (micro structure):

- *Local coherence.* In what ways are claims based on relationships of cause-and-effect constructed?
- *Implicit information.* What information is implicit, implied, taken-for-granted, dependent on a certain worldview?
- *Redundant information.* Are there any kinds of superfluous attributions or descriptions of events or actors?
- *Choice of quotations.* What are the origins of the chosen quotations?
- *Choice of words.* Which words are chosen in preference to others?
- *Rhetoric.* By what means does the news item try to convince the reader of the credibility of the information given? For instance statistics, sources with a strong ethos, appeals to emotions etc.

CDA is a method of interpretation, and the main instruments for testing the validity and reliability of its results are “logic and credibility of argumentation, backed up by quotes from the texts” (Carvalho and Burgess, 2005: 1461). The quotations presented in the article function illustratively only, and are representative examples of a larger empirical body of material.

### Materials

The empirical materials are derived from three newspapers, different in character: *Dagens Nyheter* (DN), a national daily broadsheet; *Aftonbladet* (AB), a national daily tabloid; and the local newspaper *Nerikes Allehanda* (NA). The goal of the selection was not primarily comparative, but rather to cover a broad spectrum of newspapers in order to avoid results explainable by the bias of one particular newspaper. These three newspapers with wide circulations give a comprehensive picture of the Swedish press. The selection consists of news articles only, and does not include argumentative items such as editorials, columns, or commentaries. A search within the databases “Mediearkivet” and “Presstext” on “climate change\*” or “greenhouse effect\*” or “global warming\*”<sup>1</sup> generated 334 articles, of which 193 belonged to the aforementioned argumentative categories or touched upon the topic only in passing, and were therefore not included in the analysis. Hence, the results are based on 141 news items over a period of 12 months (1 September 2004–6 September 2005), all qualitatively analyzed in accordance with the CDA model mentioned above.

## 4. Results

Broadly speaking, the results presented here display *the discursive construction of global climate change as a social problem*. Anderson (1997) suggests that a social problem exists when it is recognized as such by a considerable number of people calling for action to do something about it. Collective action against global warming is, as will be shown, a central theme of the Swedish print media reporting on the issue. In particular there are two forms of demands for collective action permeating the reporting: action as *mitigation* and action as *adaptation*,

though these specific concepts are never mentioned. This focus reflects the main elements of the debate on the international policy arena in the form of the United Nations Framework Convention on Climate Change (FCCC) and the Intergovernmental Panel on Climate Change (IPCC), where the climate change issue is divided into two distinct but related branches: the limitation or *mitigation* of greenhouse gas emissions (reducing the speed of climate change) and *adaptation* of society to the effects of climate change (Burton et al., 2002; Elander et al., 2003; Pielke, 1998; Smithers and Smit, 1997).

The *collective action frame*<sup>2</sup> of *mitigation* clearly dominates the reporting on climate change. This also reflects the policy agenda, where mitigation of global warming has figured for a much longer period of time than has adaptation to its effects—adaptation thus being less developed as a policy response (Burton et al., 2002; Uggla and Lidskog, 2006).<sup>3</sup> As a number of studies have already concluded, media coverage of the environment is dependent on *events*. Without any concrete incident that can be connected to environmental issues, it is highly unlikely that the media will report on, for instance, climate change (e.g. Allan et al., 2000; Anderson, 1997; Dunwoody and Griffin, 1993; Einsiedel and Coughland, 1993; Miller and Parnell Riechert, 2000; Miller, 2002). However, the events that seem to drive the frame of mitigation differ from those that trigger the *collective action frame of adaptation*. The frame of mitigation is strongly related to international political events such as G8 summits, the implementation of the Kyoto treaty, trade in emission quotas and the like. In contrast, the collective action frame of adaptation seems to have been triggered by recent dramatic weather situations, especially the storm “Gudrun” in early 2005, which caused tremendous electricity supply problems in the south of Sweden and caused extensive damage to the forestry industry. The difference in character of the types of events that trigger the two collective action frames respectively has implications for the attribution of responsibility as is shown in the following sections.

#### *The collective action frame of mitigation as a transnational responsibility*

As a result of the focus on events such as international summits, mitigation is framed as a transnational concern. The responsibility for mitigating global warming is, however, attached to the institutions of the industrialized countries only, thus liberating Third World countries from the burden of responsibility:

... miscellaneous developing countries will not agree to restrict their emissions by a certain number of percentage points by a specific year. If they did so, these countries would not stand a chance of developing and at least approaching the standard of the developed countries. (DN, 12 November 2004)

The transnational realm of the First World for the mitigation of global warming is not constructed as a cohesive unit, however. A dividing line is drawn between “Us,” the European Union, who treat global warming as a serious problem and want to take action, and “Them,” the United States, who neglect the global impact of the changing climate, and refuse to even discuss regulations:

For a period of almost two weeks, Europe and the USA have tried to solve the disagreement about how to proceed with future negotiations on greenhouse gases. The EU wanted several meetings during the coming year. The USA wanted to restrict contacts to one single meeting, at which participants would exchange information only. (NA, 19 November 2004)

The EU realizes that it is necessary to listen to the Americans, even though the EU, at least thus far, has defended the [Kyoto] treaty tooth and nail. (DN, 16 February 2005)

This emphasis on the conflict between the US and the EU seems to be a characteristic of the reporting on climate change that the Swedish press shares with its French counterpart. Brossard et al. (2004: 364) show that the controversy that the French press centers upon in the construction of a dramatic angle similar to the Swedish one “is not scientific but one of international diplomacy” with the US and the EU as the main actors. In the analyzed Swedish newspapers, the role of the EU is metaphorically constructed as the “engine” of climate change negotiations, unable though to “pull the burden alone, the USA has to join” (NA, 16 February 2005). The reporting plays up the situation as fraught with conflict, and the lack of consensus is used as an essential ingredient in the construction of the European “We” as opposed to the American “Them.” International climate change politics is literally described as a “drama”:

The real climate *drama* begins now. (DN, 22 November 2004, emphasis added)

The interpretation that the USA is the loser of the Live 8- and G8-*drama* is possible, but then the loss seems vague and uncertain. (NA, 9 July 2005, emphasis added)

The antagonistic relationship between the stakeholders in the controversy and their polarization are strengthened by the deployment of metaphors referring to physical struggle, and the use of military vocabulary (cf. Einsiedel and Coughland, 1993) additionally underscores the dramatic character of the issue at hand. Collective action is described as a “battle to confront the threats against the arctic ecosystem” (DN, 27 November 2004) wherein there are two belligerent powers—the EU and the USA—of which there can be only one victor: “The EU had to give in to the USA at the climate meeting” (DN, 19 December 2004).

The US is described as “the great and overriding problem” in the mitigation of global warming, and President G.W. Bush is assigned attributes such as being “reluctant” and “stubborn” (DN, 5 July 2005, 22 November 2004). The choice to quote a sign critical of the American policy that was placed outside the American embassy on the day of the implementation of the Kyoto treaty, contributes to the sense of animosity against the US and its government: “Bush, do you have a spare room in the White House? Mine has been taken by the sea” (DN, 17 February 2005).

It is often claimed that national media uphold and reproduce the national identity (e.g. Anderson, 1991; Billig, 1995; Olausson, 2005). This is to a certain extent true for the construction of the frame of mitigation as collective action. By choosing to quote the Minister for the Environment, DN points out that the consensus within the EU was based on a Swedish proposal; thus emphasis is placed on the national community:

The result is a great success ... We managed to create clear objectives ... A Swedish proposal for compromise constituted the basis for the agreement. (DN, 11 March 2005)

However, the national outlook is deeply integrated into a broader transnational community perspective. Even though Sweden and the EU are mentioned separately, they are both described as being part of the group of “good guys”; they appear side by side in the reporting, and the agreement and commitment between them are underlined. The national “We” is thus transcended and incorporated into the European identity:

Perhaps it is not unfamiliar to *us* in Sweden and Europe that greenhouse gas emissions cause great changes in the world climate. (DN, 14 November 2004, emphasis added)

The delay notwithstanding, Sweden and the EU have both planned for, and made a number of decisions in order to conform to, the [Kyoto] treaty. (DN, 16 February 2005)

Even though the collective action frame of mitigation above all attributes responsibility to the international institutions, the national and local levels of the “global continuum” are not totally absent. The municipality of Örebro receives, as a case in point, the designation “environmental municipality” because of its efforts to promote “greener driving” (NA, 22 September 2004) and in the quotation below, responsibility for mitigating global warming is attributed to national policymaking:

The government [must] dare to rule more harshly and use carrots to make industry and motorists understand the point of reducing their emissions of greenhouse gases. (DN, 26 August 2005)

The frame of mitigation as a transnational concern and responsibility is, as already noted, constructed by means of an emotionally charged and conflict-oriented discourse in which the conflict between the US and the EU is highlighted. However, quite the opposite is true when responsibility instead is attributed to the national or local levels of the global continuum. The discourse is neutral, distanced, and oriented toward neither drama nor conflict. Press releases or statistics about the amount of carbon dioxide emissions of each town in the municipality seem to constitute enough incentive to trigger the collective action frame of mitigation as a national or local responsibility. Minor incidents like the appearance of a couple of demonstrators bicycling around the country to make people “think twice about their emissions of carbon dioxide” (NA, 30 July 2005) or realize that “everyone can contribute to its [the greenhouse effect’s] reduction” (DN, 16 August 2005) also result in media attention. The collective action frame of mitigation as a local or national responsibility and concern is thus somewhat marginalized, not least in terms of presentation.<sup>4</sup>

#### *The collective action frame of adaptation as a national and local responsibility*

While the transnational level of the global continuum (ranging from local to national to transnational) is emphasized in the construction of the mitigation frame, the very same level *is to a large extent omitted from the frame of adaptation*. Instead, the local and national realms are attributed responsibility for adapting society to climate change, which could be seen as a consequence of the focus on extreme weather, which seems to trigger the adaptation frame. A number of problems caused by climate change, described as likely to appear and necessary to adapt the public routines of society to, are enlisted in the reporting: floods, shortages and pollution of drinking water, health problems among the sick and elderly, increased risk of infection due to heatwaves, changing soil conditions, problems for the forestry industry etc. The risks connected to climate change, as portrayed by the press, all call for action at the national or local levels. The responsibility for dealing with these issues is attributed to municipalities, local and national authorities, politicians, and sometimes companies such as national power plants. In a study of German print media, Weingart et al. (2000) found that the media above all called for political action in order to limit the damages of global warming. They also concentrated on identifying scapegoats for the shortcomings in adapting society to the consequences of the changing climate. Similarly to how global warming is framed in German newspapers, the Swedish press focuses on the lack of responsibility taken by national and local institutions, adding a dramatic perspective of “bad news” to the frame:

Today, neither the Swedish Environmental Protection Agency nor any other public authority has the responsibility to prepare Sweden to face powerful storms, floods, droughts, scorching summer days, and other things that climate change presumably will bring with it. (DN, 22 January 2005)



Sweden today is poorly equipped to prevent the effects of heat-waves and floods. (NA, 7 July 2005)

The national and local focus of the frame, and the absence of transnational perspectives could, for many different reasons, be regarded as problematic and not a self-evident scope of coverage. One striking effect of the neglect of a transnational perspective on adaptation is the fact that the Third World is not incorporated into the frame. Instead the reporting on this area remains within the conventional frame of pity (cf. Höijer, 2004; Olausson and Höijer, 2003), i.e. the people described are routinely attributed the role of passive victims (Boltanski, 1999; Shaw, 1996; Žizek, 1995). Below is the personalized story of a nomad elder in Niger, who has been dramatically affected by drought. The extreme weather, with tragic consequences for the innocent nomad, is described as the effect of man-made climate change, originating from the industrialized part of the world.

Mantou Namaji has never heard about the greenhouse effect and global warming. But it is he who harvests what we sow. Or rather, he who doesn't harvest. (AB, 15 August 2005)

The affluent part of the world is responsible for the changing climate. It is growing ever more obvious that climate change is becoming our new debt to the developing countries. (DN, 12 August 2005)

Hence, the frame of pity and postcolonial guilt, by which the Third World is more or less mechanically constructed in the press, could be said to *obscure* the possibility of including Third World countries in the collective action frame of adaptation.

It is worth noting that the collective action frames of mitigation (reducing greenhouse gas emissions) and adaptation (adapting society to the changing climate) hardly ever appear in the same article. In one of those rare articles in which both frames of collective action actually are present, there is a radical shift from the local/national outlook, dominating the adaptation frame, illustrated in the first quotation below, to the focus on international relations, characterizing the mitigation frame, exemplified in the second quotation, which speaks through the voice of the Minister for the Environment:

Rainstorms might flood the Gamla Stan subway station. The outflow of Mälaren must be facilitated. (DN, 1 December 2004)

To solve this [reducing emissions], there is need for comprehensive international collaboration ... (DN, 1 December 2004)

To sum up, the collective action frames of primarily mitigation, but also adaptation saturate the analyzed newspapers' reporting on global climate change. But the question is, with what discursive strategies<sup>5</sup> is legitimacy claimed (cf. Solesbury, 1976) for these frames? What unquestioned and taken-for-granted assumptions support and enable them?

### *The frame of certainty*

Underpinning the collective action frames of mitigation and adaptation is the assumption that *human-induced global warming is a direct cause of climate change, bringing with it dramatic consequences already at hand*. A common result of studies of, in particular, the US media reporting on the environment is instead that the journalistic criterion of objectivity, defined in a liberal-pluralist sense, guides reporters to always present both sides of an issue, in this case by allowing both "believers" in global warming and "non-believers" to be heard in the press coverage, and that the ritual of "balance" is extensively practiced (Brossard et al., 2004;

Boykoff, 2008; Einsiedel and Coughland, 1993). Zehr (2000), who studied the US popular press from 1986 to 1995, claims that scientific uncertainty and controversy were salient characteristics of the coverage of global climate change. The results reported here indicate that, in contrast to the “uncertainty discourse” (Zehr, 2000: 87) dominating US press coverage, an unquestioned and taken-for-granted *frame of certainty* is prevalent in relation to the climate issue in the Swedish press.

In the process of constructing global warming as a “real” and significant issue worthy of collective action, there seems to be no room for scientific uncertainties or conflicts about the existence, extent, and current effects of climate change. The phenomenon has become a naturalized common-sense concept implemented into everyday news discourse. As a case in point, the periodic articles about the weather of the season contain expressions like “a bit greenhouse-warmer than before” (DN, 31 August 2005). The choice of words in the quotation below (“are” and not “might be,” “will” and not “might”) indicates the central assumption of the construction of collective action frames: there is no doubt about the existence of climate change and its effects:

Today, the greenhouse effect and the climate change *are* once again pushing the natural borders of the fir northwards. The climate in the south of Sweden *will* in years to come become warmer and damper, and possibly windier. (DN, 20 January 2005, emphasis added)

It is, however, not only future effects that are directly blamed on climate change but also present phenomena. The relationship between cause (climate change) and effect (recent floods) is not a matter of discussion or ambivalence, but stated in persuasive terms:

The changes of climate have in recent years caused extraordinarily powerful floods in several parts of the country. (NA, 1 July 2005)

Similarly to what Weingart et al. (2000) found in the German coverage of global warming, the connection between anthropogenic emissions of carbon dioxide and the already perceptible climate change is portrayed with an air of self-evidence:

It is the large-scale consumption of fossil fuels of the industrial countries, and the resulting carbon dioxide emissions that have led to the climate change we already are beginning to see. (DN, 19 December 2004)

Extreme weather situations are consequences of those climate changes that we ourselves create by emissions of greenhouse gases. (NA, 12 May 2005)

The extreme weather situations are thus constructed as recurrent phenomena in today’s society and the reporting emphasizes the phenomenon of global warming as the cause of recent and coming weather situations, giving voice to those scientists and others who advocate this position. “This will become reality, so we must pay attention to it,” states a climatologist commenting on the health effects of climate change, quoted in *Nerikes Allehanda* (12 July 2005).

The frame of certainty is composed not only with the help of “experts” but also by means of personalized stories from “eye witnesses,” who testify to ongoing effects of global warming. The need for collective action seems incontestable in the context of the personal experiences described in the quotations below, of which the first constitutes a headline:

The Changing Climate Impacts Us Like This—Magnus Has Witnessed the Sea Taking the Cottages. (AB, 8 November 2004)

Reindeer herder Bror Saitton tells how the Lapps of Sweden have seen the tree line move northwards and that periods of thaw during the winter have become more common over

the last forty years. Since the nineties, the snow has melted faster as well. (DN, 9 November 2004)

In some rare cases, the scientific community's hesitation to view recent storms, uncommonly hot summers, and mild winters as effects of climate change is mentioned in the reporting. However, when this is the case, scientific uncertainty is handled in a manner that reduces its salience in all essentials. The frame of certainty is basically built by means of the collection and presentation of arguments from actors with strong ethos and a high level of legitimacy, to de-legitimize the skeptical perspective on the phenomenon of global warming. In the article cited below, the negative connection between present weather and the greenhouse effect is immediately transformed into its opposite through the voice of an "expert"; there is, on the one hand, no concrete evidence of a connection between today's weather and climate change, but the plausibility of this connection is, on the other hand, nevertheless significant:

But like all experts on the climate, Rummukainen stresses that individual storms cannot be attributed to the ongoing warming. ... Nevertheless Markku Rummukainen can very well imagine that the raging storm of last week is a sign of the escalating greenhouse effect. (DN, 16 January 2005)

The willingness to go beyond the field of elite sources (politicians, public institutions, and scientific experts) seems to be limited, a finding that is one of the best documented in news research (Miller and Parnell Riechert, 2000). Political or environmental actors outside the sphere of institutionalized politics are to a large extent omitted from the reporting, as are skeptics of human-induced global warming.

Another discursive strategy that constitutes the certainty frame, thus according legitimacy to the frames of collective action, is the construction of "scare stories." Einsiedel and Coughland (1993) demonstrate in their study how environmental stories, unlike other science stories, are marked by negativity. The results of the study reported here show that the news stories are fear-generating and explicitly relate serious risks and various sorts of harm to the phenomenon of climate change. The serious and uncontrollable nature of this environmental risk is emphasized by the choice of words, for instance "galloping greenhouse effect" and "disastrous effects." Attention-getting words and expressions like "increased mortality," "diseases," "treacherous bacteria," "catastrophe," and "accidents" establish the negative and frightful context in which climate change is discursively constructed.

Weingart et al. (2000) show how scientific hypotheses about global climate change were transformed in German print media into a general prediction of a coming climate catastrophe. This prediction was constructed by means of a dramatic, negative, and sensationalized presentation, and the authors put forth telling examples from headlines such as "Death in the Greenhouse." The Swedish reporting on global warming is similar to the German reporting on this point as well. Below, dramatic and negative events and damage are mentioned in the cited headlines:

Super Mosquitoes Invading Sweden—Mosquito Expert Forced to Run. (AB, 27 July 2005)

The Arctic Gone in Hundred Years. Scare Report from Climate Scientists. The Polar Bear under Threat of Extinction due to Rise in Temperature. (DN, 12 October 2004)

Tourist Resorts in the Mediterranean Threatened by Increasingly Hotter Summers. (NA, 2 July 2005)

In the quotation below from the opening of an article the dramatic character of the effects of climate change is additionally underlined in the introductory paragraph by the use of periods and capital letters between each enumerated "scary" effect:

Insect attacks. Forest fires. New species with dangerous diseases passed on to people. Skin cancer, glaucoma, and immunal dysfunction due to increased UV-radiation. ... the ten most severe outcomes of the climate change of the Arctic. (AB, 8 November 2004)

In this way, scare stories of various kinds add force to the certainty frame—that man-made global warming truly exists and is generating serious risks with relevance for everyday life. In the context of these frightening effects, the need for collective action—in the form of mitigation or adaptation on various levels of the global continuum—seems indisputable.

## 5. Discussion

This study displays how media frames constitute a “cognitive window” (Pan and Kosicki, 1993: 59), through which the climate issue attains meaning. This process of meaning construction on climate change could to a great extent be characterized as a process of constructing common sense. The relation between anthropogenic emissions of carbon dioxide and the already perceptible climate change is depicted as beyond rational questioning and has become a “naturalized” understanding of the issue.

The analysis demonstrates numerous similarities between media and international policy discourse on the issue of climate change. As shown, there does not seem to be any discernible connection between the collective action frame of *adaptation*, action setting out to adapt society to climate change, and the collective action frame of *mitigation*, action aiming to reduce greenhouse gas emissions, in the analyzed newspapers. The two frames exist parallel to each other, in different contexts, hardly ever appearing in the same news items, regardless of the fact that they constitute two sides of the same coin—how to tackle the issue of climate change. The lack of synergy in the news reporting largely reflects the conditions on the international policy arena, where the two policy responses hitherto have been treated as “two fundamentally dissimilar approaches” (Klein et al., 2003: 4). The absence of connecting bridges in the news coverage between the frames of mitigation and adaptation is evident also in the distribution of responsibility for collective action. The fact that the responsibility for mitigation is primarily delegated to the international institutions, whereas responsibility for adaptation is left to the local or national spheres, resembles the policy responses of the two branches of the climate issue; mitigation is said to primarily concern national governments in the context of international negotiations, whereas adaptation is a matter for local actors, individual households, and companies in the context of a regional society (Adger et al., 2004; Pielke, 1998; Tol, 2005). The construction of climate change in Swedish print media thus takes place in a largely uncontested discursive setting (Carragee and Roefs, 2004)—there is no “framing contest” (e.g. Anderson, 1997) worth mentioning going on between various stakeholders but the power structures attain legitimacy by the very naturalness of their appearance; media discourse and policy discourse being deeply intertwined.

Elsewhere (Olausson, 2007), I have argued that, in the pluralistic landscape of late modernity, in order to uphold their (self-)assumed role as a tool for democracy, national media should function as “discursive bridges,” facilitating communication between various communities, which in all essentials would mean abandoning “banal” nationalism (Billig, 1995). The national outlook is not suited to grasp the economic, political, and cultural processes taking place today, and thus is not able to orient the public in an increasingly complex reality (Berglez, 2007). The results show that due to the close relationship with policy discourse, there is a tendency to transcend the borders of the nation-state in national media’s construction of the collective action frame of mitigation. This tendency indicates that a transnational gaze to some degree manifests itself not least in light of the discursive construction of a European

“We” in which the nation-state is both included and transcended. LaMay and Dennis (1991) point to the fact that most environmental issues never escape the parameters of provincialism, but it seems as if the collective action frame of mitigation manages to circumvent the national logic to some extent (although it is perhaps still more *international*, focusing on relations *between* nation-states, than *transnational*, focusing on relations that go *beyond* nation-state logic, in character).

The frame of certainty is a general feature of the reporting, strengthening the two frames of collective action, a result that is quite different from that of studies of the US media, which display much more scientific uncertainty (e.g. Brossard et al., 2004; Boykoff, 2008; Zehr, 2000). Interestingly enough, the certainty frame and the call for action to come to terms with the changing climate that characterize the Swedish press coverage are phenomena discerned in studies of other European media. Brossard et al. (2004) present results from studies of the French press that are very similar to those reported here. The same kind of certainty about climate change was constructed in the press coverage, and the same focus on international relations including the construction of a European “We” as opposed to the American “Them” was found. The authors suggest that the differences between the US and French reporting on climate change might be explained by differences in national journalistic culture, i.e. between the US journalistic ideal of “objectivity” and the French “opinion”-colored reporting style. Another way to interpret these divergences is to regard them as expressions of *the media’s—European as well as American—responsiveness to the political settings in which they operate*. Policymaking on issues surrounded by scientific uncertainties is in the US, as pointed out by Skolnikoff (1999), rather different from that in other industrialized democracies: the highly differentiated structure of government makes it more difficult to reach consensus when scientific certainty is lacking. The American media’s tendency to display uncertainty in relation to the climate issue could be interpreted as a manifestation of the inclination to conform to policy discourse. The similarities in Swedish and French, and concerning the frame of certainty also German (Weingart et al., 2000), reporting on climate change indicates that in all probability the importance of the European political setting for European national media’s construction of global environmental risks is rising. Hence, this article is emphasizing the relevance of the *transnational political realm of Europe* for the construction of news frames on global environmental risks in European media (cf. Slaatta, 2001; de Vreese, 2001). This is an empirical question for further research to probe more deeply into.

To conclude, the tight relationship between the political elite and the media implies that *the media do not offer any alternative frames*, in relation to those established in policy discourse, for understanding global climate change (cf. Carvalho, 2005; Carvalho and Burgess, 2005). The close bonds between policymaking and the media, especially when it concerns events or phenomena outside the nation-state, are not a new or revolutionary insight. A number of studies have concluded that the news media often fail to fulfill their mission as the fourth estate, since policy options of the nation-state seldom are critically examined (e.g. Bennett, 1994; Chomsky and Herman, 1988; Mowlana, 1992; Nohrstedt, 1986). The relatively novel dimension of this conclusion in the present study is that this relationship between media frames and the structures of power seems to expand *beyond* the borders of the nation-state, into the transnational sphere of Europe.

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## Notes

- 1 In Swedish: “klimatförändring\*” or “växthuseffekt\*” or “global uppvärmning\*.”
- 2 The concept of collective action frames originates from Gamson’s (1992) seminal study of citizen and media discourse in which it is used to describe politically permeated frames—the formation of a “we” with the potential of *doing* something about some kind of *injustice* or bad condition in society. In the present article the concept of collective action frames is used in a broader sense, on a global scale, yet it maintains its constitutive political dimension: What can “we” do about climate change?
- 3 Eighty-five of the analyzed articles were directly relatable to the mitigation frame, while the number of articles in which the adaptation frame appeared was 20.
4. Later studies of the Swedish news media have revealed an increased focus on *individual* responsibility for the mitigation of climate change (Berglez et al., forthcoming).
5. Discursive strategies should here be interpreted as “forms of (discursive) manipulation of ‘reality’ by social actors in order to achieve a certain goal. ... The intervention and its aim can be more or less consciously pursued” (Carvalho, 2005: 3).

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