Imperial College London
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MSc Science Communication

Non-scientific actors in climate change coverage of The Times and Daily Mail

Assignment 1 in The Media Representation of Science

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Every time I hear the words «global warming» I get very cautious and a little bit anxious. This is a reflex I developed after learning the hard way, a young inexperienced journalist as I was, that climate change is a controversial issue where science and politics mingle and science is not something that can provide definite answers, even if it presented so.

My anxiety stems from the sometimes outright hostile reactions of Estonian science community and the indifference of many people, including my colleagues and editors, to the importance of the topic, which I, being influenced by massive international coverage, was by then convinced of. Many prominent Estonian scientists (mainly geologists) publicly denounced global warming as a myth and after one or two articles about threatened polar bears and the sea level rise, my editors stated impatiently: we have read it before, IPCC produces too many reports, find something new to write about. All this taught me in practice, what I have now learned in theory in my first weeks in Imperial College: first, that sources have their hidden agendas, and second, that people perceive articles in context of their values and previous knowledge and can interpret the presented facts quite differently.

Climate change remains a marginal issue in Estonia, in stark contrast to many other European countries including Britain. Following international media from Estonia, it seemed to me that these countries have moved on from the debate about whether global warming in real and manmade to how should we promote sustainability in all spheres of life and mitigate the inevitable consequences of climate change; there has been a shift from scientific to political dimension. This notion is what I tried to verify and quantify with the content analysis presented in this essay.

The title of my study is «Non-scientific actors in climate change coverage of The Times and Daily Mail». I was interested in who, except scientists, gets quoted in articles about climate change, and what their agenda is. I chose three main indicators: the motivation for publication of article, non-scientific actors and the objects of their statements. Although the sample is small, the result should give us some answers to questions: what kind of climate change related 'events'[1] get the attention of the media, who are speaking in the stories besides scientists and what are they talking about.

[1] By 'events' I mean any kind of activity (including making statements, publishing reports or journalists following up a previous story) that can be understood to be the motivation for publishing the article.

For the analysis I looked the articles from 30 days (20 September to 20 October) from The Times and Daily Mail, using the Factiva on-line database. I used the search for phrases 'climate change' or 'global warming', on the condition that they are in the headline or lead paragraph, presuming this to be the best indication that the article's main focus is on these issues. From the initial sample I manually eliminated a few articles that only briefly mentioned climate change in the lead paragraph but went on with non-related subjects; and a few that were short, strictly informational pieces that did not contain any quoted sources. Times and Daily Mail were selected to give a possibility of comparison between the coverage in a quality paper and the coverage of a more popular publication. The final sample included 28 articles.

In each article I looked for statements made by non-scientific actors, i.e. sources that were not scientists and who were quoted either directly or indirectly. I noted, whether the statements were constructive (supportive and/or suggesting some action), destructive (critical and/or suggesting inactivity), balanced (both views are present) or neutral/ambivalent[2]. By looking whether their support or critique is aimed at science, political activity or business sector, to name the main areas, a sketchy picture of active actors and their agendas should emerge, as far as the limited nature of content analysis and the small sample will allow it to. The final sample included 59 statements by non-science actors.

Perhaps most problematic aspect of the coding was my decision to separate strictly scientific actors from science-related actors. In the second category I aimed to have institutions which do research but whose other roles stretch into areas present in other coding categories, e.g. Environment Agencies (a part of power elite) or Wildlife Conservation Society (activism). In those cases their statements were included in the coding when the actor was not specifically labelled to be a researcher (the statements of scientific actors were not coded, but the number of scientific actors was recorded for comparison purposes). But the separation lines were sometimes fuzzy, making the decisions more subjective.

Table 1.
Motivation for publication

Other report or analysis	8
Other statements	6
Political action	5
Unexpected event	3
Other planned events	3
No clear motivation	3
Peer-reviewed scientific study	0
Industry/business action	0
Total	**28**

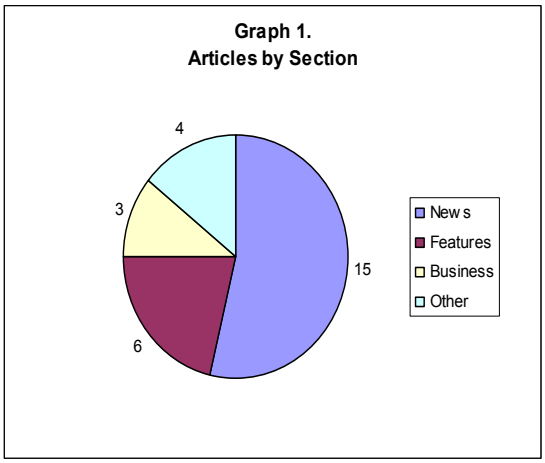
[2] The full coding sheet is added to the essay. The coding process proved that I had included some categories in vain, as they did not occur or did not produce meaningful results.

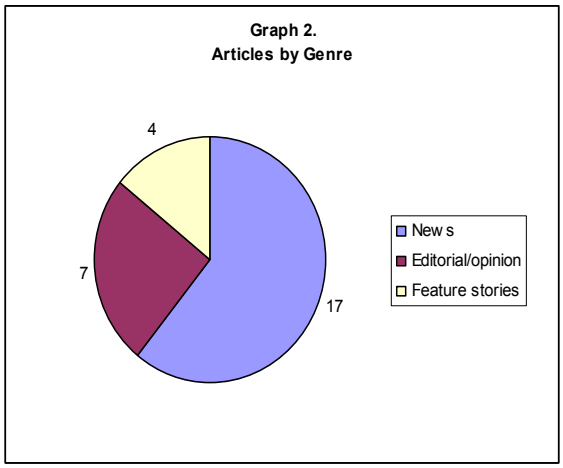
Also, the distinction between scientific studies and 'other reports and analyses' was made based of whether the study was published in a peer-reviewed journal or not (based on whether it was mentioned in the newspaper article[3]). This produced the first surprise of the study – no article was based on peer-reviewed studies. As we see from Table 1, the dominant motivation for publication is the publishing of a report or analysis. They are closely followed by various statements, mostly made by representatives of the power elite, and political actions. The 'unexpected event' is in this case the global financial crisis which spurred several news stories analysing how his would affect government's plans to fight climate change.

News is the dominant section and genre for climate change articles (see Graphs 1 & 2), but a dispersion into other sections could be seen. In the observed period, climate change articles featured for instance in the Food section of The Times and the Sports section in Daily Mail. That a quarter of all articles were opinion pieces (including Letters), also indicates that the issue is not confined to news pages but stimulates a discussion in the society.

Table 2. Actors	
Scientific	14
Power elite	11
Science related organisation	9
Business/industry	9
Media	6
Common man	5
Other organisation	3
Culture/Entertaiment	3
Other	2
Total	**62**

Politicians have not taken over the topic completely. The list of actors[4] shows (Table 2) that science related actors (scientists and representatives of science-related organizations) make up one third of them. Another third comes from power elite and business; media and common





[3] Being published in a peer-reviewed journal is an important news value which makes in unlikely, although not impossible, that such a fact would not be mentioned in a news article.
[4] In case of opinion pieces the author was also considered an actor.

Table 3. **Constructive attitude By/towards**	Scientific consensus	Scientific action	Political action	Business action	Activism	Consumer behaviour	Media	Other	
Science related organisation	4	1	1						**6**
Other organisation									**0**
Power elite			4	1					**5**
Business/industry	1	1	3	2					**7**
Culture/Entertaimnet				1		1			**2**
Media							1	1	**2**
Common man		1							**1**
Other									**0**
	5	**3**	**8**	**4**	**0**	**1**	**1**	**1**	**23**

Destructive attitude By/towards	Scientific consensus	Scientific action	Political action	Business action	Activism	Consumer behaviour	Media	Other	
Science related organisation					1	1			**2**
Other organisation		1							**1**
Power elite			2		1			1	**4**
Business/industry			1				1		**2**
Culture/Entertaimnet						1			**1**
Media			1						**1**
Common man			1						**1**
Other	2						1		**3**
	2	**1**	**5**	**0**	**2**	**2**	**2**	**1**	**15**

Balanced attitude By/towards	Scientific consensus	Scientific action	Political action	Business action	Activism	Consumer behaviour	Media	Other	
Science related organisation			2	1	1				**4**
Other organisation			2						**2**
Power elite			1	1					**2**
Business/industry			1						**1**
Culture/Entertaimnet									**0**
Media			2						**2**
Common man									**0**
Other									**0**
			8	**2**	**1**				**11**

man are also quite well represented. All celebrity statements regarding climate change come from a single article that dealt with Formula One going ’green’ and what the pilots’ views on global warming.

The decisive question about actors’ agenda can be glimpsed through the ’object of attitude’ category (Table 3). Now politics emerges as the main topic, being the centre of both praise and criticism. Science receives a fair amout of support. Criticism in much more evenly

divided between the areas, with almost every category receiving the equal, though not a significant number of critical comments.

The sceptical agenda is presented in two articles (BBC Was Biased On Climate, Says Peer and Met Office Gives A Roasting To Global Warming Sceptics), both in Daily Mail. In a few other articles the sceptical voice is represented by well known environmentalist Bjorn Lomborg, but he actually states in one of them that he does not contest the anthropogenic nature of global warming but consideres political actions towards fighting CO_2 emissions ineffective and pointlessly expensive. Despite these few sceptical voices it is fair to say that the anthropogenic nature of climate change has been accepted as undisputed and the debate has moved on mainly to the arena of political actions, but also reflecting on what should be done by businesses and people. Scientists and power elite have always been the most prominent sources, at times the latter even surpassing the former as was the case in United States in 1989 and 1990 (Boykoff and Boykoff, 2004). «These US politicians often called for more research on global warming as a necessary precursor to taking mandatory action,» (*ibid*.: 131). In contrast to that, science is never discussed by power elite during the period of my study.

The Times published three times as many stories about climate change and global warming than Daily Mail (21 and 7, respectively). As already mentioned, Daily Mail gave floor to sceptical agenda (the motivation rather being conflict involving elite organizations like BBC and Met Office) and celebrities, which probably comes down to the different news values of popular press. The sample is too small to see any other significant trends.

The agenda of science-related sources that did not qualify as scientific actors is still mostly science-centered, strongly endorsing the scientific consensus on global warming. Statements about political action, business actions or consumer behavious are made, but none very prominently. Since the whole sample of analyzed articles was quite small, some individual stories can easily distort the picture. This time one longer feature about life in Greenland in warming conditions brought in a substantial number (3 out of 5 for the whole sample) of common man actors and all celebrities also featured in one article.

Since the study looked at all climate change related articles from 30 days, the coverage was impacted by events dominating the period and therefore we must be very careful in

extrapolating longtime trends from the data. Especially because the newspapar coverage of global warming has been shown to be of cyclical nature: «Implied danger and consequences of global warming gain more prominence on the upswing of newspaper attention, whereas controversy among scientists receives greater attention in the maintenance phase. The economics of dealing with global warming also receive greater attention during the maintenance and downside of the attention cycle,» say McComas and Shanahan (1999: 30), based on their content analysis of The New York Times and The Washington Post stories from 1980 to 1995.

Major events during observed period were credit crunch (increasing the presence of actors from business), the creation of a new department of energy and climate change under Ed Miliband, and Governments decision to adopt tougher climate change targets. Except for the financial crisis the other political events cannot be considered extraordinary and therefore we can presume the nature of climate change coverage during this period to have been quite routine. The focus on political and business actions might indicate the downside of the attention cycle, since there have been recently no major climate change related events (like IPCC reports or weather catastrophies), but without further analysis of coverage on a longer period, this remains a speculation.

This brief and rough analysis about non-scientific actors in climate change coverage showed that while scientific and science-related actors remain most prominent sources in articles, reports and studies the dominant reason for publication of a newspaper story, their proportion accounts for less then a half and political topics and actors are catching up, as is to be expected when an issue becomes politicized. What we see can be described as a period of consolidated political action where the debate in media is centered around different political solutions and regulations, with research contributing to the newsfeed by pointing to specific problems and solutions. The 'alarmist' presentation of global warming consequences which has been highlighted by much of the previous research does not seem to be so prominent any more. One can argue that this is due to achived aim of making climate change an issue that requires political action. Once there is less need to mobilize people into action, there is also less need for the catastrophe discourse. «The media held that early scientific warnings, which they had picked up in the late 1970s, had been ignored by politicians for too long,» write Weingart *et al*. (2000: 278) describing the typical positions of the media in the debate.

According to Weingart *et al.* (2000), Germany went through the transformation of climate change discourse from the climate catastrophe into an object of routine political regulation by 1995. This is where they end their analysis, but issue a warning note that this may not have been the final chapter. They refer to a backlash of media becoming more sceptical and less interested, perhaps influenced by the more sceptical coverage of US quality press (the bias which Boykoff and Boykoff (2004) attribute to the journalistic norm of balanced reporting).

The cycles and changing discourses in global warming coverage demand more mapping, especially because they are probably quite different in different countries. The snapshot presented in my analysis suggests that in Britain we are in a phase where climate change is integrated into various other discourses: political, economic, social etc. The reality of climate change is almost undisputed and non-scientific actors do not discuss science in the public debate but rather the implications of climate change to their perspective field.

Now I can trace the roots of my anxiety to the fact that while my main information sources about climate change presented one discourse, the Estonian society operated in another. Journalistic tools that were adequate for one, did not have the same effect in the other. This would have been difficult to show with content analysis, not least because of the small sample, this is why with this essay I tried to map the situation in British media.

Bibliography:

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Coding Sheet

1. Publication
    1. The Times
    2. Daily Mail
2. Section .....
3. Title of article .....
4. Author .....
5. Author's position .....
6. Length (in words) .....
7. Date .....
8. Page .....
9. Genre
    1. News
    2. Editorial/opinion
    3. Interview
    4. Feature
    5. Other .....
10. Motivation for publication
    1. Unexpected event
    2. Peer-reviewed scientific study
    3. Other report or analysis
    4. Political action
    5. Industry/business action
    6. Other statements
    7. Other planned events
    8. No clear motivation
11. Number of scientific actors .....
12. Field of non-reasearch actors
    1. NGO / International organisation
        1. Science/Environment related
        2. Other .....
    2. Power Elite (politics and civil service)
        1. International
        2. National
        3. Local
    3. Business/Industry
        1. Fossil fuels
        2. Alternative energy
        3. Other .....
    4. Culture/Entertainment
    5. Religion
    6. Law
    7. Media
    8. Common person
    9. Other .....
13. Level of Reference
    1. Quoted directly
    2. Quoted indirectly

14. Attitude
    1. Constructive, supportive
    2. Destructive, critical
    3. Balanced
    4. Neutral/Ambivalent
15. Object of attitude
    1. Scientific consensus on climate change
    2. Scientific action
    3. Political action
    4. Business action
    5. Activism
    6. Consumer behaviour
    7. Media
    8. Other .....