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# Participation and Emotion in BBC Online News and Blog-posts: A Snapshot on Climate Change

## Summary

The present study focuses on expressions of emotion in online news and blogs and the way in which they contribute to shaping the co-construction of information about an issue of public concern (more specifically the environmental issue) and the discoursal identities of participant communities. The theoretical framework of analysis is based on recent developments in discourse studies and appraisal theory on language about emotions. The corpus of data (BBC online articles and readers' comments) have been analysed adapting the classification system of affect-types elaborated by Bednarek (2008). However limited, the data offer interesting and unexpected insights into participation to news construction and user-generated content: the way in which news and information are reported (the mediated 'narrative') elicits more language about emotion and concern than the central issue at stake (the environmental problem).

Key words: online news, participation, emotion language, affect, discourse

# Udeležba in čustva v BBC-jevih spletnih novicah in blogih: pogled na klimatske spremembe

## Povzetek

Študija se osredinja na izražanje čustev v spletnih novicah in blogih ter na njihov doprinos k sooblikovanju vesti ter diskurzne prepoznavnosti udeležencev. Teoretični okvir za analizo temelji na zadnjih ugotovitvah diskurznih študij in na teoriji o jezikovnem izražanju čustev. Za analizo besedilnega korpusa (BBC-jeve spletne novice in komentarji bralcev) sem priredila Bednarekov klasifikacijski system čustev (2008). Kljub omejenosti korpusa, je analiza dala zanimive in nepričakovane podatke o sodelovanju udeležencev pri ustvarjanju vesti: način poročanja povzroči rabo čustveno bolj bogatega jezika kot vest sama.

Ključne besede: spletne novice, udeležba, čustveni jezik, čustva, diskurz

# Participation and Emotion in BBC Online News and Blogposts: A Snapshot on Climate Change

## 1. Introduction

Fast developing innovations in technology are offering new tools of communication and creating new types of hybrid discourses by a variety of new virtual communities and groups of stakeholders. The general impression is a great impetus towards 'democratisation' due to modes of 'participation' on the Web 2.0 whereby, instantly and continuously, anybody can respond to, react against, support or denounce anything that is happening or is about to happen (Baron 2008). The starting hypothesis of the study is that 'participation' only partially co-exists with individual and community critical awareness, informed decision-making and authentic co-construction of information and opinions.

The phenomenon of open interactivity of Web 2.0 has become a recurrent aspect in our daily life (Loos, Haddon, and Mante-Mejer 2008; Metitieri 2009; Vincent and Fortunati 2009). The extraordinary possibilities of being permanently 'online', in touch with all the people we want to contact and up-to-date with the latest information we want to acquire (Baron 2008) has transformed our lives and changed the concept of distance and deixis. The overall impression is one of freedom and choice coupled with the virtual disappearance of boundaries on the web between reader and writer and the widespread presence of 'e-users' that can become 'e-actors' whenever they decide to express their views, contact other e-users, make their presence felt online. User-generated content is becoming among the most relevant contribution of the new interactive web; among its latest developments is the phenomenon of 'citizen journalism' namely the grassroots information run by computer users who participate to news-making online. There are websites entirely run as citizen journalism (see, among numerous others the well-established *Agoravox*) while other institutional media are open to the participation of their e-users thanks to blogs and other social network such as Facebook and Twitter. The widespread opportunity to interact online (via computer and cell phone) gives the overall impression of a widespread democratization process; however, some news analysts and media experts (van Dijk 2009; Thorsen 2008; Thurman 2008; Barnhurst 2005; Metitieri 2009) are rather cautious if not critical of the ease with which news can be given emphasis and online visibility.

The present study offers some insights on this highly complex and controversial matter and focuses on a language aspect that is most influenced by interpersonal and subjective factors: the expression of emotions. The article is structured as follows: first data, research questions, type of analysis and the starting hypotheses are presented; then the theoretical framework is outlined. The second part of the article discusses the data analysis and its interpretation.

## 2. Data and research questions

The paper offers a snapshot of how an issue of increasingly public concern, such as the environment, and in particular climate change, has been recently constructed in a prestigious online media

channel (BBC). The BBC was chosen because of the wide coverage given by this media company to environmental issues (to the extent that several readers/users define its articles as too 'biased' towards an environmental viewpoint). The data consists of a mini corpus (39276 words) of 5 feature articles written by professional journalists or 'opinion articles' written by experts (see Bell 1991) about the environmental issue of climate change and the direct participation of e-users to news construction in the comments posted at the end of each article (see details in Appendix 1). The posts are monitored and edited, since they do not contain any 'spurious' materials as happens in other totally free news blogs (see, for instance, *Alternet*) where users can post any information, even unrelated to the topic. The comments are elicited by a question or a series of questions by the editor or the journalist (see Appendix 1).

The analysis focuses on the interpersonal function of communication and in particular on expressions of emotion which contribute to shaping the co-construction of information about the issue at stake (the specific environmental issue dealt with in the article or comment) and the discoursal identities of participant communities. It is to be expected that the language of the blogposts is influenced both by the language of the article itself and the questions posed at the end of the main article (see Appendix 1).

The data are only a sample of the world-wide debate that has been developing in the past year about climate change and what has been called the 'climategate affair', i.e. 'the publication of e-mails and documents hacked or leaked from one of the world's leading climate research institutions' (ClimateGate1–12–2009, reference to the data are listed in full in Appendix 1). The texts have been chosen among the BBC articles which allow readers/users to post their comments. The articles belong to a very relevant time for environmental issues and capture its latest developments: from December 2009 to March 2010. The Conference about Climate Change, which had created a lot of expectations among environmentalists, was held in Copenhagen (Cop15 – Denmark, 7th – 18th December 2009). Its failure to deliver a generally accepted deal on climate change and the 'climategate affair' had both an important effect on the ongoing debate about climate change.

The research questions addressed are the following:

Is it possible to identify recurrent, similar or contrasting emotions expressed by the journalists and their readers/blogpost-writers about the issues at stake?

To what extent do the expressions about emotion contribute to constructing the issue dealt with and the identities of its stakeholders?

The starting hypotheses are the following:

1. Feature/opinion articles of this kind contain emotion language while seemingly presenting issues 'objectively' or in an argumentative balanced way.

2. Readers' posts are more heavily emotional than the feature articles to which they refer.

3. Affect types will be overwhelmingly negative, since negative issues tend to have more news value.

The section that follows will outline the theoretical framework of the study.

# 3. Theoretical framework

Defining emotion is no easy task, given that over a hundred definitions can be found in the literature (see an overview in Oatley, Keltner, and Jenkins 2006); however, there seems to be at least consensus in present-day research on the fact that some aspects of emotion are universal because biologically determined (Oatley, Keltner, and Jenkins 2006: Ch 6; Ekman 1997; Gallois 1994), while other aspects are culturally determined by socialization and cultural schemata (Ekman 1997; Turner and Stets 2005; Gallois 1994, Scherer 2005). Among the many definitions of emotion, ground-breaking studies in the field of neuroscience have been those of Damasio (1999, 2003a, 2003b) and his group. He has suggested that, as the five senses connect the external world to the brain activating nerve patterns, emotions are nerve activation patterns that correspond to inner states. In psychology, LeDoux's seminal studies (1998) show that emotion is a process rather than a state and, as Robinson (2005) summarises, the process of emotion contains elements of appraisal and judgement, first pre-cognitive and, in a subsequent phase, cognitive: 'the core of emotion will always be physiological responses caused by an automatic affective appraisal and followed by cognitive monitoring' (Robinson 2005, 59). The overlapping between appraisal/judgement and emotion is interestingly represented in language by the complex overlapping of linguistic evaluation and the expression of emotion as mentioned below (Martin and White 2005; White 2006; Bednarek 2008).

Most studies in different areas remark that emotion includes 'an eliciting condition, a cognitive evaluation, physiological activation, a change of action readiness, and finally an action' (Johnson-Laird and Oatley 1989, 82).  In verbal communication this can be expressed directly or indirectly in ways which vary with culture and sub-culture, group and even personal idiosyncratic variations; patterns also vary across text-types, registers and communicative events.

The linguistic literature about emotions in communication is vast (see Bednarek 2008, 7–9 for an overview of main studies in different areas of linguistics).  Bednarek (2008, 11) mentions that a fundamental distinction cuts across all these approaches: the study of language *about* emotions (called by Bednarek *emotion talk*) that is all the expressions that denote emotions/affect, and the study or language *as* emotions (called by Bednarek *emotional talk*) that is all those constituents that signal emotions/affect (e.g. paralinguistic features, some metaphoric expressions, emphasis, repetitions, etc). The present study will deal with the first category in order to focus on emotions written *about,* rather than expressions giving vent to emotional reactions of the writers, like in the following example: *We don't need any more "Web 2.0" lily-livered, buzzword laden claptrap* (ClimateGateBlog).

Another basic distinction in linguistic research relates to how emotions are portrayed by the speaker/writer and how texts create an emotional response in the addressee (listener/reader). In this study only the former is investigated, even though the latter is implicitly present and explicitly represented in the blogposts as reactions elicited by the articles (but not necessarily as reactions only to the 'emotion talk' of the articles).

The framework of analysis used in this paper originates from the studies in Appraisal Theory by Martin and White (2005) and White (2006) in which one of the three major categories of Evaluation is Attitude as Affect (the 'emotive dimension of meaning' Martin and White 2005,

4, 46–52); the other two dimensions, at times overlapping with Affect, are Judgement (dealing with ethics and evaluating behaviour) and Appreciation (dealing with aesthetics and evaluating text/process, natural phenomena) (Martin and White 2005, 44). Bednarek (2008) uses Martin and White's classification system of Affect as the basis for her wide-ranging corpus-based study on emotion; complementing it with a variety of other methodological tools (corpus and cognitive linguistics and pragmatic analysis; Bednarek 2008, 13), she offers a revised classification system of emotion talk which has been adopted to categorise the occurrences of emotion in the present article (Bednarek 2008, 171–5; see Appendix 2).

## 4. Framework of analysis

As already mentioned, the data consists of a mini corpus (39276 words) of 5 feature articles written by professional journalists or 'opinion articles' written by experts (see Bell 1991) about the environmental issue of climate change and the direct participation of e-users to news construction in the comments posted at the end of each article. First the articles were compared as one sub-corpus to the sub-corpus of all the blog comments in order to obtain raw quantitative results; then each article was separately analysed and compared to its blog. The study is not quantitatively representative given the limited amount of data of the corpus, but it belongs to a wider work-in-progress study on emotion in the media and, in particular, on emotion in user-generated news items.

The data was analysed using the W-Matrix programme, which identifies semantic fields connected at some level of generality with the same mental concept (USAS tagging; Rayson 2009). For the purpose of this paper, I identified the occurrences of the major discourse field Emotion (E and its sub-categories E1–E6) and the subcategory A5 (from the discourse field General and Abstract Terms related to Evaluation) (see list of USAS tagging online, Rayson 2009) and then manually analysed them in their discourse context using the categorization of affect types of Martin and White (2005) as re-elaborated by Bednarek (2008).

In Bednarek's categorization, five major sets of emotions (un/happiness, in/security, dis/satisfaction, dis/inclination and surprise) constitute a 'fuzzy system of affect', which, with minor changes, has been used for the present analysis (see Appendix 2). Some occurrences identified by W-Matrix in the Emotion discourse field were discarded because they did not fall into the framework chosen. For the same reason, W-Matrix subcategory A5 (Evaluation) yielded only very few occurrences of terms about emotion, since most of them belong to categories of Appreciation and Judgement (Martin and White 2005). The person or group of people who experience the emotion are called 'emoters' and what evokes the emotion is called a 'trigger' (Bednarek 2008).

Two sub-types of Affect have been added to Bednarek's categorization: General are expressions that referred to emotion without further specification and thus problematic to fit into any more specific category: *emotional intelligence, emotional investment, emotion* (ClimateGateBlog). A sub-type of Affect added to Dis/inclination is 'preference', i.e. *bias* in the occurrences in which they have contextually a meaning of Affect (ClimateGateBlog). Occurrences have been analysed in their wider context and assigned to the affect sub-type of their meaning in context: *I like* used ironically, for instance, has been inserted into the category unhappiness: antipathy (see Appendix 2).

Categorization of emotion is discoursally complex since, as Martin and Rose (2003) point out, it is possible to speak of a 'prosodic nature' of affect: different types of affect often concur together to a certain textual effect and patterning. Even a distinction as basic as negative and positive emotions is not always straightforward due to discourse or pragmatic factors (the effect of irony, for instance) (Galański 2004; Turner and Stets 2005). The issue is further complicated by the overlapping of meaning in emotion terms (Johnson-Laird and Oatley 1989; Ekman 1999; Turner and Stets 2005; Kővecses 2000) (see the next section). The subjective emotional response of the analyst is also a problematic factor that can be limited (but not eliminated) by accurate and repeated cross-checking.

The next section will summarise some of the findings.

## 5. The articles and their comments by readers/users

| BBCArticles | BBCBlogComments |
|---|---|
| Total number of words: 6493 | Total number of words: 32783 |
| Total occurrences: 23 (0.35%) | Total occurrence: 176 (0.53%) |
| Total number of words: 39276 | |

## 5.1 Climate Gate 1–12–2009 and its blogposts

The article ClimateGate1–12–2009 was published shortly before the beginning of the Copenhagen Conference on climate change and deals with the so called 'climategate affair', i.e. the publication of e-mails and documents leaked, earlier in the year (2009), from one of the world's leading climate research institutions (an institution which was accused to have doctored scientific results about climate change). 6 out of 7 expressions of emotion in the article refer to the issue of 'trust' in science on the part of the public opinion and only one occurrence refers to a possible sense of insecurity on the part of the scientists.

This article has triggered a large amount of comments on the part of readers/users who, in the days following the publication of the article, wrote 15023 words of comments containing 71 occurrences of terms about emotion. The most interesting aspect of the comparison is that in the comments there are 2 references to the *trust* of scientists, while the *trust* of the public (3) needs to be re-established after the shock of allegedly doctored documents about climate change released by scientists. In the blog an emotion that should be overcome is expressed as *faith* in science on the part of the public (7 occurrences); in the specific context it has a negative connotation of *blind faith* totally unjustified (*It's always faith based on some rickety construction*) and detrimental to science. *Faith* never occurs in the articles but will re-appear in other blog-comments (see below). The sense of insecurity and danger is directly expressed by readers/comment writers as *fear* (10 occurrences) caused by global warming, but also by lack of integrity on the part of scientists and the negative consequences this has on public opinion; scientists, on the other hand, are portrayed as worrying more about their research grants than about the consequences of climate change. In the area of satisfaction two occurrences out of four refer to the 'pride' of scientists, one positive (*As*

*a scientist, I am proud of my discipline and its methods)* written by a scientist, while another comment is rather disparaging (*scientists are not immune to pride and deception, even self-deception*). Feelings of dissatisfaction: displeasure for the scandal and/or the damage it does to the environmental cause are powerfully conveyed using both first person deixis and more generic expressions with a rather dominant feeling of anger: *I am angry / ashamed for /unhappy; angry dissent / sad day for science / very disappointing / article is infuriating /indignant /you don't like.* Unhappiness expressed as antipathy is rampant (6) with two occurrences clearly directed against scientists and media coverage; this is reinforced by expressions of unhappiness: misery which clearly reveal the personal and collective sadness for the 'climategate affair' and, in particular, the disappointment for media reports about this issue. In 15 occurrences (out of 71) the emoter is the first person singular deixis, which reveals the personal and explicit involvement of the comment writers about the issue and his/her negative view on media coverage and the world of science. It is also interesting to note that in 32 occurrences the emoter is a collective first person plural or a generic reference to the public/stakeholder: *you/all/public/people.* The emotions expressed are thus generalised and convey the impression of public opinion rather critical of media coverage and scientists' work.

## 5.2 Climate Change 7–12–2009 and its blogposts

In the article ClimateChange7–12–2009 (published the opening day of the Copenhagen Conference about Climate Change) there is only one term about emotion (*want*, in the headline), but there are several occurrences of 'emotional talk' which are not included here (see, for instance, the final sentence of the article: *To shirk this responsibility would be nothing short of devastating – for our economy, the planet and millions of its poorest people*).

The ClimateChangeBlog presents a variety of mainly negative expressions of emotions in the Affect types of inclination: desire (*greed, willing*); I added to inclination a sub-category for instances that I could not include into the other sub-categories: Preference (*bias*). Insecurity: disquiet is expressed as three occurrences (*very concerned, scares, fear*) triggered by environmental issues, but in one occurrence it is presented as the problem of *privileged people* (emoter). Dissatisfaction: displeasure is expressed as *lamentable failure*, antipathy as *irritating leftist drivel* (which is also highly emotional). Unhappiness: misery as *sadly* and *suffer tremendously.* The only supposedly positive occurrences refer one to Gordon Brown's words (*I loved Gordon Brown flat earther statement concerning skeptics)* and the other is rather neutral than positive (*in our appreciation*).

Similar emotions of unhappiness: misery (*sadly, suffer*) can reflect opposite positions: the use of negative emotions in the blog comments presents the issue of climate change as either *damaging the earth* or having a negative impact on *personal finance* if environmental measures are set in place against it.

## 5.3 Climate Failure 22–12–2009 and its blogposts

Even before the end of the Copenhagen Conference about Climate Change (7th–18th December 2009), news articles started to appear in the media about its failure to deliver clear guidelines to reduce pollution and limit climate change. The article ClimateFailure22–12–2009 and its blog appeared some days after the conclusion of the Conference (18th December 2009); it is

a sort of anti-climax article which receives only a limited amount of comments (404 words in comparison with 15023 words of the posts in reaction to the ClimateGate1–12–2009 article). The only reference about emotion in the comments is to a hypothetical situation of *oppression and misery* which would have been realised if the conference had been successful; its co-text is a highly emotional passage against the whole attempt to limit climate change:

*The more political an issue gets, the more perverted it gets. Climate change is a political hoax and scientific fraud. The whole thing stinks, any binding agreements on cuts in CO2 emissions would only have led to oppression and misery.* (ClimateFailureBlog)

This is the only case in which article and blog contain similar frequencies of emotion expressions (0.42% the article and 0.49% the blog). The article contains negative emotions (*disappointing, annoying*) and the trigger of the only positive *affection* is the city of Copenhagen which hosted the Conference (and this highlights even more the lack of positive emotion about the focus of the article). Interestingly, the emotion *trust* appears in the article negated by the verb *destroyed* and the trigger (and cause) is *politicians' behaviour*. Insecurity: disquiet appears in the expressions referring to *threat* (*threatened by climate impacts; climate threat*) due to *climate impact/climate* (triggers). The journalist's disappointment in the article comes mainly from politics and national policies that are unable to deliver clear decisions about climate change.

## 5.4 Climate Confusion 11–1–2010 and its blogposts

While the article contains only two instances of emotion related to dissatisfaction and disinclination, the blog contains a variety of occurrences: insecurity: distrust (*irreparably damaged public confidence, cannot trust, trust*) and insecurity: disquiet including mainly expressions related to fear and worry (9 occurrences: *scare, fear, frighten, concern, worrying, worried*). Another affect sub-type with high frequency is unhappiness: misery (10 occurrences: *sad, sadness, saddening, sadly, unhappy, depressing, disenchanted, regret*) mainly referring to the disappointing state of information, political interference and scientists' reports. The readers also comment on the *frustration* the journalist expresses. An interesting occurrence, never present in the articles, appears again in this blog: *faith* (see also ClimateGateBlog above); it belongs to affect sub-type security: trust, but in the context of the blogpost acquires the negative meaning of 'irrational trust' (*It's based on faith not fact*) on a subject that should be based on hard facts (climate change). This occurrence is present several times in comments which are critical towards non-reliable scientific reports; as happens in ClimateGateBlog, the readers tend to agree when criticizing the state of information about the climate issue, while they disagree on the actual issue and the action to be taken.

## 5.5 Still Problems 16–3–2010 and its blogposts

Emotion expressed in StillProblems16–3–2010 and its comments in the blog are predominantly negative and many of the apparently positive emotions are used ironically or in contexts that negate their seemingly positive meaning. The dominant emotion in the article belongs to unhappiness: misery. Even the positive *glee* is part of a passage in which it rather means 'superficial, flippant attitude' rather than 'happy'.

In the blog comments, affect sub-type inclination: desire is closely related to inclination: preference (*bias*) and in/security. The emotion expressions in the texts show that readers *would like* less *biased* viewpoints from the scientific community and the BBC itself (*Given the abject bias held by the BBC on this subject I doubt this will be published; the heroically biased BBC*), because *the damage to public confidence was irrevocable* due to allegedly doctored data released by scientists working on climate change ('climategate affair'). The result is a rather high occurrence of affect type unhappy: misery (13 instances among which *get sick, sadly, sad, depressing, suffer, tragic, despair, tragedy, misery, disillusioned*); this represents a clear criticism of the readers/users towards the people who have the responsibility of delivering 'correct' information: scientists, the media, politicians.

In comparison with the comments in the other blogs, the intensity of emotion is higher. It is possible that this is partly due to intertextuality with the article. However, the context of use is remarkably different: while the powerful negative emotions expressed by the journalist refer to the issue itself (*climate change* as trigger of *horror, tragedy, tragic*), the readers shift the focus of their negative expressions of unhappiness towards a wider range of triggers (*media reports, ignoring information, credibility, politician's attitude, flawed economy, intelligence of humans, Cop15, democracy, scientific reports, climate change*).

## 6. Emotion in climate change

As anticipated in the initial hypotheses, the overwhelming majority of negative emotions was to be expected due to the genre (news) the texts belong to and topic they deal with. Media and discourse studies literature has clearly shown that negative events seem to have more news value than positive events (Barnhurst 2005). As Bednarek summarises, '*Negativity* can be regarded as the basic news value. It means that the negative – damage, injury, death, disasters, accidents, conflicts, wars, etc – makes the news' (Bednarek 2006, 16). As a result, negative emotions outweigh positive emotions in the news (Bednarek 2008, 194) and the present data are no exception.

Blogposts contain more expressions referring to emotion than the articles they refer to. Quantitative results are far too limited to be representative; however, the general trend clearly sees opinion articles containing fewer occurrences of terms about emotion (raw data 0.35 % of occurrences in the articles and 0.53% in the blogs, but a larger corpus is needed to yield statistically significant data). The result is in line with the difference in genre of the two text-types: on the one hand an opinion article, on the other personal comments elicited by questions posed at the end of news articles (seemingly by the journalist or by the editor of the webpage) and addressed to *you* the individual reader (Appendix 1). One of these questions even overtly elicits an emotive reaction:

*Are you enthralled or appalled by the idea of ordinary citizens being involved in reviewing scientists' work?* (enthralled and appalled are highlighted in red on the webpage).

The wording of the questions contributes to explaining the high occurrence of emoters in first person singular deixis (31 overt expression of emotion of the comment writer), but also the text-type 'blog comment' tends to be more informal than opinion news articles and contain therefore

higher occurrences of first person deixis (Baron 2008). First person plural deixis (inclusive by default of the comment writer) blends with generic collective nouns such as *public, people, humans* and seems in contraposition with other better specified emoters present in the blogs: *scientists, journalists, media, politicians.* Looking at the wider picture of emotion language in the blogs, whatever the position of the comment writer is towards climate change and the 'climategate affair', it appears that s/he is emotionally distant from *scientists, journalists, media, politicians* who are constructed (at least as far as emotion language is concerned) as if they do not belong to the general public or the collective *we*, but as powerful and untrustworthy stakeholders.

Another peculiarity in the readers' comments is the trigger of emotions: 61 out of 71 refer to general and scientific information (*media, BBC, information, scientific reports,* etc); emotions are more focused on the 'public narrative' of climate change than on the issue itself. While on the one hand this is clearly justified in the blogs of ClimateGate1–12–2009 and ClimateConfusion22–12–2009, since the questions elicit readers' comments on the quality of information, on the other hand, the other three articles and questions deal with climate change and the Copenhagen international conference.

As far as affect-types are concerned, there are two peaks of negative emotions: for the climategate affair (ClimateGate1–12–2009) and the article depicting the lack of clarity and action about climate change (StillConfusion16–3–2010). The dominant emotions relate to fear, worry and security due to breach of trust on the part of those who should have delivered 'objective' and scientific information; dissatisfaction is represented by anger, indignation and frustration; unhappiness by shame and sadness. In ClimateConfusionBlog insecurity seems to increase (*fear, scare and worry*), as does dissatisfaction (*disturbing*); unhappiness increases as well (*sadness, regret and depression*). The most forceful expressions of emotion ca be found in StillConfusionBlog: insecurity due to lack of trust brings to *hysteria, fear, concern*; unhappiness is forcefully expressed as *sadness, tragedy, despair, disappointment, misery, suffering,* etc. This high pitch of emotion is certainly partly due to the interdiscoursal and intertextual influence of the most emotional article in the corpus, containing *horror, tragedy and disappointment*. The difference, however, is that in the article these emotions are triggered by climate change and disappointment as the aftermath of the Copenhagen conference and in the comments they tend to be triggered by media and scientific reports and politicians' attitudes.

## 7. Concluding remarks

The analysis only focused on a very limited aspect of communication (expressions about emotions) and on a small corpus of data from the BBC website. Results cannot be generalized and further research needs to be carried out at different levels: analysis of a wider corpus of data including websites of participative journalism; further research on emotional expressions (emphasis, repetitions, metaphors, graphic devices, etc.) which have been excluded from the present study would complement the analysis of emotion expressions; a multimodal analysis of how verbal and non-verbal aspect interact in conveying emotion is a further field for investigation.

However limited, the data offered interesting and unexpected insights into participation in news construction and user-generated content. The most important finding is the relevance of media

information and popularization of scientific findings in triggering readers' emotion online about issues of public concern. The way in which news and information are reported seems to have more emotional impact than the issue itself. Reactions about how news is reported rather than the content of news show the (implicit or explicit) awareness the e-users have of media power and gateways of information (scientific reports). At the same time, e-users are contributing to this power and reinforcing it. The issue of public concern becomes once removed: emotions are triggered by climate change narratives (including the 'climategate affair'), rather than by the environmental issue itself. Participating in the blog is, therefore, taking 'verbal action' on media narratives, and focusing emotional investment on public 'stories' rather than on public events.

## Bibliography

Baron, N. 2008. *Always On. Language in an Online and Mobile World*. Oxford: O.U.P.

Barnhurst, K. 2005. News Ideology in the Twentieth Century. In *Diffusion of the News Paradigm 1850–2000,* ed S. Høyer and H. Pöttker, 239–65. Göteborg: Nordicom.

Bednarek, M. 2006. *Evaluation in Media Discourse. Analysis of Newspaper Corpus.* London: Continuum.

–––. 2008. *Emotion Talk across Corpora*. Basingstoke: Palgrave Macmillan.

Bell, A. 1991. *The Language of News Media*. Oxford: Blackwell.

Damasio, A. 1999. *The Feeling of What Happens: Body, Emotion and the Making of Consciousness.* London: Heinemann.

–––. 2003a. *Looking for Spinoza: Joy, Sorrow and the Feeling Brain*. Washington DC: Harvest Books.

–––. 2003b. Emotion in the perspective of an integrated nervous system. *Brain Research Reviews* 26, no. 2–3: 83–6.

Ekman, P. 1997. Should we call it expression or communication? *Social Science Research* 10, no. 4: 333–44.

–––. 1999. Basic Emotions, *http://www.paulekman.com/pdfs/basic_emotions.pdf* (last accessed 20-1-2009).

Galasiński, D. 2004. *Men and the Language of Emotion.* Hounsmill: Palgrave Macmillan.

Gallois C. 1994. Group membership, social rules, and power: a socio-psychological perspective on emotional communication, *Journal of Pragmatics* 22: 301–24.

Johnson-Laird, P.N., and K. Oatley. 1989. The language of emotions: An analysis of a semantic field. *Cognition and Emotion* 3: 81–123.

Kővecses, Z. 2000. *Metaphor and Emotion*. Cambridge: Cambridge University Press.

LeDoux, J. 1998. *Il cervello emotivo*. Milano: Baldini and Castoldi.

Loos, E., E. Mante-Mejer, and L. Haddon, eds. 2008. *The Social Dynamics of Information and Communication Technology.* Aldershot, England: Ashgate Publishing.

Martin, J., and D. Rose. 2003. *Working with Discourse: Meaning behind the Clause*. London: Continuum.

Martin, J.R., and P.R.R. White. 2005. *The Language of Evaluation: Appraisal in English.* London: Palgrave.

Metitieri, F. 2009. *Il grande inganno del Web 2.0*. Roma: Laterza.

Oatley, K., D. Keltner, and J. Jenkins. 2006. *Understanding Emotions*. Oxford: Blackwell.

Rayson, P. 2009. Wmatrix: a web-based corpus processing environment, Computing Department, Lancaster University. http://ucrel.lancs.ac.uk/wmatrix/ last accessed 20th May 2010.

Robinson, J. 2005. *Deeper than Reason: Emotion and Its Role in Literature, Music, and Art.* Oxford: O.U.P.

Scherer, K. 2005. What Are Emotions? How Can They Be Measured? *Social Science Information* 44, no. 4: 695–729.

Thorsen, E. 2008. Journalistic Objectivity Redefined? Wikinews and the neutral point of view. *New Media and Society* 10, no. 6: 935–54.

Thurman, N. 2008. Forums for Citizen Journalists? Adoption of user generated content initiatives by online news media. *New Media and Society* 10, no. 1: 139–57.

Turner J., and J.E. Stets. 2005. *The Sociology of Emotions*. Cambridge: C.U.P.

Van Dijk, J. 2009. Users like you? Theorizing agency in user-generated content. *Media, Culture & Society* 31, no. 1: 41–58.

Vincent, J., and L. Fortunati, eds. 2009. *Electronic Emotion. The Mediation of Emotion via Information and Communication Technologies*. Oxford: Peter Lang.

White, P.R.R. 2006. Evaluative semantics and ideological positioning in journalistic discourse. A new framework for analysis. In *Mediating Ideology in Text and Image,* ed. I. Lassen, J. Strunck and T. Vestergaard, 37–67. Amsterdam: John Benjamins.

## Websites

*Agoravox*: *http://www.agoravox.com/news/* last accessed 30th April 2010.

*Alternet* *http://www.alternet.org/* last accessed 30th April 2010.

# Appendix 1

**References of data - BBC website:**
(last accessed 30th April 2010)

*'Show Your Working': What 'ClimateGate' means*
By Mike Hulme and Jerome Ravetz
*http://news.bbc.co.uk/2/hi/science/nature/8388485.stm*
ClimateGate1–12–2009
ClimateGateBlog

Questions eliciting comments from the readers:

Do you agree with Mike Hulme and Jerome Ravetz? Does the ClimateGate affair have implications for the way science, and climate science in particular, is run? Does the way we communicate nowadays mean that science has to become more open? Are you enthralled or appalled by the idea of ordinary citizens being involved in reviewing scientists' work?

*The world wants action on climate change*
By Andy Atkins
*http://news.bbc.co.uk/2/hi/science/nature/8375406.stm*
ClimateChange7–12–2009
ClimateChangeBlog
Do you agree with Andy Atkins? Do rich nations have a legal and moral obligation to lead the battle against climate change? Should rich nations use their wealth to pay for developing nations

to build clean energy infrastructures? Or is carbon trading the best option in a global context to reduce emissions?

*Why did Copenhagen fail to deliver a climate deal?*
*http://news.bbc.co.uk/2/hi/science/nature/8426835.stm*
ClimateFailure22–12–2009
ClimateFailureBlog

Why do you think Copenhagen failed to deliver a deal? You can send us your views using the form below:

*A selection of your comments may be published, displaying your name and location unless you state otherwise in the box below.*

*http://news.bbc.co.uk/2/hi/science/nature/8426835.stm*

*Science must end climate confusion*
*http://news.bbc.co.uk/2/hi/science/nature/8451756.stm*
By Richard Betts
ClimateConfusion11–1–2010
ClimateConfusionBlog
Do you agree with Dr Betts? Is climate science being used as a political football? Do scientists need to take more responsibility to ensure their work is correctly understood? Or is the difference of opinions about climate change the sign of a healthy democratic debate?

*It's still real and it's  still a problem*
*http://news.bbc.co.uk/2/hi/science/nature/8568377.stm*
By Lord Chris Smith


StillProblems16–3–2010
StillProblemsBlog
Do you agree with Chris Smith? Is the real issue about climate change the when or the if? Have we lost hope in the prospect of truly global binding deals in the wake of recent controversies and conference outcomes?

# Appendix 2

(categories adapted from Bednarek 2008)

| BBCArticles | BBCBlogComments |
|---|---|
| Total number of words: 6493 | Total number of words: 32783 |
| Total occerrences: 23 (0.35%) | Total occurrence: 176 (0.53%) |
| Total number of words: 39276 | |

| | | emotion | emoter | trigger | emotion | emoter | trigger |
|---|---|---|---|---|---|---|---|
| Affect type | Typical emotion | **Article: ClimateGate1-12-2009**<br>Total frequency of items shown: 7 (0.38%)<br>Total number of words: 1851 | | | **Blogposts: ClimateGateBlog**<br>Frequency in blog: 71 (0.47%)<br>Total word number: 15023 | | |
| GENERAL | not specified | | | | - emotional intelligence,<br>- emotional investment<br>- emotion<br>3 | humanity<br><br>e-mail writers<br><br>public | information<br><br>interpretation<br>climate news<br>information |
| DIS/INCLINATION | | | | | | | |
| DESIRE | wishes, willingness, volition | | | | - would like<br>- would like<br>- would assert<br>- would<br>- would like<br>- dare<br>- would love<br><br>- am all for<br><br>8 | I<br>I<br>I<br>who<br>I<br>people<br>scientists<br><br>I<br>public | say<br>address<br>[something]<br>name<br>meaning<br>suggesting<br>stop<br>politicizing<br>educating the public |
| PREFERENCE | | | | | 3 bias<br>- inclination<br>4 | scientists<br>public | data<br>information |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| NON-DESIRE | reluctance, unwillingness, non-volition | | | | - does not like<br><br>1 | group controlling the data | a point of view |
| | | | | | | | |
| IN/SECURITY | | | | | | | |
| SECURITY: TRUST | trust in someone or in a future happening | 6 trust<br><br>6 | public | science /scientists | 6 faith<br><br>- confidence<br>2 trust<br>3 trust<br><br>12 | people<br><br>public<br>scientists<br>public | scientific reports on climate change<br>science<br>science<br>scientific reports |
| INSECURITY: DISTRUST | distrust, reserve, suspicion | | | | - not faith<br>- not placing confidence<br>- not rely on<br>3 | people<br>people<br><br>people | science<br>scientific reports<br>reports |
| SECURITY: QUIET | assurance, confidence, ease, safety, relaxation | | | | - to appease<br>1 | politicians | our results |
| INSECURITY: DISQUIET | fear, worry, anxiety, puzzlement, confusion, embarassment | - unsettling<br><br>1 | scientists | climategate | - fear<br>- fear<br><br>- fear<br><br>- fear<br>- am concerned<br><br>- worry<br>- worry<br>- dread | I<br>I<br><br>scientists<br><br>public<br>I<br><br><br>scientists<br>scientists<br>I | all be buried<br>offend sensibilities<br>lack of integrity<br>climate change<br>conclusion of global warming<br>their grants<br>climate change<br>BBC biased |

| | Typical emotion | emotion | emoter | trigger | emotion | emoter | trigger |
|---|---|---|---|---|---|---|---|
| | | | | | - fearful type | public | way of reporting climate reports |
| | | | | | - afraid of 10 | public | hypothetical climate reports |
| **DIS/SATISFACTION** | | | | | | | |
| SATISFACTION: INTEREST | interest in, fascination with, excitement, entertainment | | | | | | |
| DISSATISFACTION: ENNUI | boredom | | | | | | |
| SATISFACTION: PLEASURE | admiration, appeal, contentment, gratitude, being impressed, pleasure, pride | | | | - am proud of | I (scientist) | of my discipline |
| | | | | | - pride (neg.) | scientists | in their work |
| | | | | | - pleasure | I | climategate |
| | | | | | - appreciation 4 | public | email |
| DISSATISFACTION: DISPLEASURE | anger, frustration, dissatisfaction (mind/bothered) | | | | - like (ironic) | we | keeping stuff secret |
| | | | | | - angry | public | reports |
| | | | | | - angry | I | BBC article |
| | | | | | - bother | we | trying to communicate |
| | | | | | - infuriating | generic | BBC article |
| | | | | | - indignant 6 | generic | climategate |
| **UN/HAPPINESS** | | | | | | | |
| HAPPINESS: AFFECTION | like, love, respect, pity | | | | - fall for 1 | all | ideas |
| UNHAPPINESS: ANTIPATHY | hate, dislike, scorn | | | | - appalled | I | lack of coverage |
| | | | | | - revile | public | scientists |
| | | | | | - rebuke | public | scientists |
| | | | | | - disliked | scientist | rival |

| | Typical emotion | emotion | emoter | trigger | emotion | emoter | trigger |
|---|---|---|---|---|---|---|---|
| | | | | | - do not like | public | inconvenient scientific data |
| | | | | | - do not like 6 | generic you | colleague |
| HAPPINESS: CHEER | amusement, cheer, happiness | | | | - to satisfy | inquisitive young | institutes and encyclopedias |
| | | | | | - happiness | generic you | poverty |
| | | | | | - happy | generic you | having more |
| | | | | | - happy-go-lucky | generic guy | life |
| | | | | | - amusement 5 | generic | reports |
| UNHAPPINESS: MISERY | sadness, guilt, disappointment, regret, grief | | | | - ashamed for | I | climategate scientists |
| | | | | | - sad | public | climategate |
| | | | | | - disappointing | generic | reports |
| | | | | | - unhappy | I | points in BBC article |
| | | | | | - disheartening | generic | reports |
| | | | | | - sadness | generic | reports |
| | | | | | - feel guilty 7 | we | enjoying life |
| SURPRISE | surprise | | | | | | |

| | | emotion | emoter | trigger | emotion | emoter | trigger |
|---|---|---|---|---|---|---|---|
| Affect type | Typical emotion | **Article: ClimateChange7-12-2009** Total frequency of items: 1 (0,11%) Total number of words: 865 | | | **Blogposts: ClimateChangeBlog** Total frequency of items: 13 (0.51 %) Total number of words: 2516 | | |
| **GENERAL** | | | | | | | |
| **DIS/INCLINATION** | | | | | | | |
| DESIRE | wishes, willingness, volition | want 1 | the world | action on climate change | - would like (hypothetical) - greed | you generic privileged | reduce hot gases advantages |

| | | emotion | emoter | trigger | emotion | emoter | trigger |
|---|---|---|---|---|---|---|---|
| | | | | | - willing 3 | people generic | favourite tv programme |
| PREFERENCE | | | | | - bias 1 | generic | climate issue |
| | | | | | | | |
| NON-DESIRE | reluctance, unwillingness, non-volition | | | | | | |
| | | | | | | | |
| SECURITY: TRUST | trust in someone or in a future happening | | | | | | |
| INSECURITY: DISTRUST | distrust, reserve, suspicion | | | | | | |
| SECURITY: QUIET | assurance, confidence, ease, safety, relaxation | | | | | | |
| INSECURITY: DISQUIET | fear, worry, anxiety, puzzlement, confusion, embarassment | | | | - concerned - scares - fear 3 | most Americans generic privileged people | environment pollution environmental issue |
| | | | | | | | |
| SATISFACTION: INTEREST | interest in, fascination with, excitement, entertainment | | | | | | |
| DISSATISFACTION: ENNUI | boredom | | | | | | |
| SATISFACTION: PLEASURE | admiration, appeal, contentment, gratitude, being impressed, pleasure, | | | | | | |

| | | emotion | emoter | trigger | emotion | emoter | trigger |
|---|---|---|---|---|---|---|---|
| | pride | | | | | | |
| DISSATISFACTION: DISPLEASURE | anger, frustration, dissatisfaction (mind/bothered) | | | | - lamentable 1 | generic | failure of commitment of rich countries |
| | | | | | | | |
| HAPPINESS: AFFECTION | like, love, respect, pity | | | | - loved - appreciation 2 | I generic | Brown's words of ourselves |
| UNHAPPINESS: ANTIPATHY | hate, dislike, scorn | | | | - irritating 1 | generic | leftist drivel |
| HAPPINESS: CHEER | amusement, cheer, happiness | | | | | | |
| UNHAPPINESS: MISERY | sadness, guilt, disappointment, regret, grief | | | | - sadly - suffer 2 | we the average person | damaging the earth personal finance |
| SURPRISE | surprise | | | | | | |

| | | emotion | emoter | trigger | emotion | emoter | trigger |
|---|---|---|---|---|---|---|---|
| Affect type | Typical emotion | **Article: ClimateFailure22-12-2009** Total frequency of items: 8 (0.42%) Total number of words: 1892 | | | **Blogposts: ClimateFailureBlog** Total frequency of items: 2 (0.49%) Total number of words: 404 | | |
| GENERAL | | | | | | | |
| DIS/INCLINATION | | | | | | | |
| DESIRE | wishes, willingness, volition | | | | | | |
| PREFERENCE | | - preferred - prefer 2 | big countries big players | arrangement | | | |

| Affect type | Typical emotion | emotion | emoter | trigger | emotion | emoter | trigger |
|---|---|---|---|---|---|---|---|
| NON-DESIRE | reluctance, unwillingness, non-volition | | | | | | |
| | | | | | | | |
| SECURITY: TRUST | trust in someone or in a future happening | | | | | | |
| INSECURITY: DISTRUST | distrust, reserve, suspicion | - trust destroyed 1 | generic | politicians' behaviour | | | |
| SECURITY: QUIET | assurance, confidence, ease, safety, relaxation | | | | | | |
| INSECURITY: DISQUIET | fear, worry, anxiety, puzzlement, confusion, embarassment | - feel threatened - threat 2 | ones generic | climate impacts climate | | | |
| | | | | | | | |
| SATISFACTION: INTEREST | interest in, fascination with, excitement, entertainment | | | | | | |
| DISSATISFACTION: ENNUI | boredom | | | | | | |
| SATISFACTION: PLEASURE | admiration, appeal, contentment, gratitude, being impressed, pleasure, pride | | | | | | |
| DISSATISFACTION: DISPLEASURE | anger, frustration, dissatisfaction (mind/bothered) | - annoying 1 | every country not on the list | list of important countries | | | |
| | | | | | | | |
| HAPPINESS: AFFECTION | like, love, respect, pity | - affection 1 | most of us | Copenhagen | | | |
| UNHAPPINESS: | hate, dislike, scorn | | | | | | |

| ANTIPATHY | | | | | | | |
|---|---|---|---|---|---|---|---|
| HAPPINESS: CHEER | amusement, cheer, happiness | | | | | | |
| UNHAPPINESS: MISERY | sadness, guilt, disappointment, regret, grief | - disappointing 1 | EU and 27-nation bloc | the deal | - oppression - misery 2 | generic | hypothetical cutting emissions |
| SURPRISE | surprise | | | | | | |

| | | emotion | emoter | trigger | emotion | emoter | trigger |
|---|---|---|---|---|---|---|---|
| Affect type | Typical emotion | **Article: ClimateConfusion11-1-2009** Total frequency of items: 2 (0.22%) Total number of words: 889 | | | **Blogposts: ClimateConfusionBlog** Total frequency of items: 35 (0.50%) Total number of words: 6967 | | |
| GENERAL | | | | | | | |
| DIS/INCLINATION | | | | | | | |
| DESIRE | wishes, willingness, volition | | | | - like (as you wish) 1 | you generic | climate |
| PREFERENCE | | | | | - bias 1 | generic | climate change |
| | | | | | | | |
| NON-DESIRE | reluctance, unwillingness, non-volition | - do not care 1 | those who wish to discredit science | wrong information | | | |
| | | | | | | | |
| SECURITY: TRUST | trust in someone or in a future happening | | | | - faith - faith 2 | generic generic | science reports science reports |
| INSECURITY: DISTRUST | distrust, reserve, suspicion | | | | - recharge confidence - damaged confidence 2 | public public | science reports |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| SECURITY: QUIET | assurance, confidence, ease, safety, relaxation | | | | - calm 1 | climatologist | study |
| INSECURITY: DISQUIET | fear, worry, anxiety, puzzlement, confusion, embarassment | | | | - scare<br>- scare off<br>- scare<br>- fear<br><br>- fear<br><br>- not worth worrying about<br>- worried<br><br>- not to frighten<br>- concerns<br><br>9 | people<br>people<br>people<br>people<br><br>generic<br><br>generic<br><br>we generic<br><br>anyone generic<br>generic | conspiracy fossil fuels climate change melting ice-caps catastrophic events climate change<br><br>global warming climate change<br><br>more important concerns |
| | | | | | | | |
| SATISFACTION: INTEREST | interest in, fascination with, excitement, entertainment | | | | | | |
| DISSATISFACTION: ENNUI | boredom | | | | | | |
| SATISFACTION: PLEASURE | admiration, appeal, contentment, gratitude, being impressed, pleasure, pride | | | | - glad<br><br>1 | I | problem with media |
| DISSATISFACTION: DISPLEASURE | anger, frustration, dissatisfaction (mind/bothered) | - teased 1 | I | believing in climate change | - disturbing | I | weather as evidence of global warning |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | | | | - disturbing<br><br>- frustration<br>- frustration<br>- frustration<br>5 | I<br><br>journalist<br>journalist<br>journalist | temperature data<br>climate change<br>climate change<br>climate change |
| | | | | | | | |
| HAPPINESS: AFFECTION | like, love, respect, pity | | | | - love<br>- hate (ironic)<br>2 | I<br>I | this world<br>give weather news |
| UNHAPPINESS: ANTIPATHY | hate, dislike, scorn | | | | - enjoy (ironic)<br>1 | you generic | ignorant opinions in media |
| | | | | | | | |
| HAPPINESS: CHEER | amusement, cheer, happiness | | | | | | |
| UNHAPPINESS: MISERY | sadness, guilt, disappointment, regret, grief | | | | - sad<br><br>- sad<br>- sad<br><br>- sadly<br><br>- sadness<br>- disenchanted<br><br>- regret<br><br>- saddening<br>- unhappy | I<br><br>I<br>generic<br><br>generic<br><br>generic<br>people<br><br>non-environmentalists<br><br>I<br>we | state of information climate change telling the truth journalist's opinion amount of situation political interference their opinion<br><br>public opinion scientists' opinion |

| | | emotion | emoter | trigger | emotion | emoter | trigger |
|---|---|---|---|---|---|---|---|
| | | | | | - depressing 10 | generic | article and comments |
| SURPRISE | surprise | | | | | | |

| | | emotion | emoter | trigger | emotion | emoter | trigger |
|---|---|---|---|---|---|---|---|
| Affect type | Typical emotion | **Article: StillProblems16-3-2010**<br>Total frequency of items: 5 (0.50%)<br>Total number of words: 996 | | | **Blogposts: StillProblemsBlog**<br>Total frequency of items: 46 (0.58%)<br>Total number of words: 7871 | | |
| GENERAL DIS/INCLINATION | | | | | | | |
| DESIRE | wishes, willingness, volition | | | | - would like<br>- would like<br><br>- would like<br>3 | I<br>I<br><br>politicians | saying<br>see reliable reports<br>you to believe |
| PREFERENCE | | | | | - biases<br><br>- bias<br>- biased<br>3 | generic<br><br>BBC<br>BBC | weather reports<br>climate change<br>climate change |
| NON-DESIRE | reluctance, unwillingness, non-volition | | | | | | |
| SECURITY: TRUST | trust in someone or in a future happening | | | | - confidence 1 | people | scientists's reports |
| INSECURITY: DISTRUST | distrust, reserve, suspicion | | | | - damage to confidence<br>- cannot trust | public<br><br>people | reports<br><br>hysteria on climate change |

| | | emotion | emoter | trigger | emotion | emoter | trigger |
|---|---|---|---|---|---|---|---|
| | | | | | - trust hard<br><br>3 | generic | scientists' reports |
| SECURITY: QUIET | assurance, confidence, ease, safety, relaxation | | | | - rest<br>-calm<br><br>-calmer<br><br>-careful<br>4 | media journalists<br><br>journalists<br><br>leading sceptics | false reports<br>climate change reports<br>climate change reports<br>explanations |
| INSECURITY: DISQUIET | fear, worry, anxiety, puzzlement, confusion, embarassment | | | | - hysteria<br><br>- hysteria<br><br>- hysteria<br>- fear<br><br>- fear<br><br>-threat<br>-concern<br><br>-trouble<br><br>8 | journalists/scientists<br>journalists/scientists<br>scientists<br>generic<br><br>I<br><br>generic<br>generic<br><br>I | pollution reports<br>pollution reports<br>cold fusion<br>NGOs/environmentalists<br>vested interests<br>climate change<br>welfare of humanity<br>emissions of China and India |
| SATISFACTION: INTEREST | interest in, fascination with, excitement, entertainment | | | | | | |
| DISSATISFACTION: ENNUI | boredom | | | | | | |
| SATISFACTION: PLEASURE | admiration, appeal, contentment, gratitude, being | | | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | impressed, pleasure, pride | | | | | | |
| DISSATISFACTION: DISPLEASURE | anger, frustration, dissatisfaction (mind/bothered) | | | | - fed up with<br>- annoyed<br><br>- angry<br>3 | people<br>I<br><br>environmentalists | lies<br>not recognition of climate change<br>climate change reports |
| | | | | | | | |
| HAPPINESS: AFFECTION | like, love, respect, pity | | | | - enjoy<br>- happy<br>2 | people<br>I | life<br>article |
| UNHAPPINESS: ANTIPATHY | hate, dislike, scorn | | | | - enjoy (ironic)<br>- enjoy (ironic)<br>- enjoy (ironic)<br>-cares<br>4 | you generic<br><br>you generic<br><br>you generic<br><br>generic | climate change reports<br>carbon trading<br><br>grants<br><br>public opinion |
| HAPPINESS: CHEER | amusement, cheer, happiness | glee<br>1 | sceptics | damage done | gleefully<br><br>enjoyed<br>2 | governments<br><br>people | tax<br>opportunity<br>cool weather |
| UNHAPPINESS: MISERY | sadness, guilt, disappointment, regret, grief | - horror<br>- tragedy<br>- tragic<br><br>- disappointing<br>4 | we generic<br>generic<br>generic<br><br>generic | climate change<br>climate change<br>climate change consequences<br>Cop15 | - get sick of<br>- sadly<br>- sadly<br>- sad<br><br>-suffer<br>-depressing<br><br>- tragic<br>- despair | I<br>generic<br>generic<br>generic<br><br>too many<br>we<br><br>generic<br>I | media reports ignoring info credibility politicians' attitude climate change flawed economy flooding intelligence of |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | | | | -<br>disappointment<br><br>- tragedy<br>- misery<br>- suffering<br>- disillusioned<br>13 | generic<br><br>generic<br>we humans<br>we humans<br>we humans | humans<br>Cop15<br><br>democracy<br>climate change<br>climate change reports |
| SURPRISE | surprise | | | | | | |