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FOCAL WORDS ON ENVIRONMENTAL ISSUES

In a British Tabloid and a Quality Newspaper

A Pro Gradu Thesis

by

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Tämän tutkielman tarkoituksena on selvittää kahden isobritannialaisen sanomalehden, The Timesin ja Sunin, suhtautumista luonnonsuojeluun ja korpusmenetelmän soveltuvuutta tällaiseen tutkimukseen. Tutkielma perustuu teoriaan, jonka mukaan sanoilla ei ole pysyvää merkitystä, vaan sanojen merkitys riippuu niistä tilanteista ja konteksteista joissa niitä on käytetty, jolloin sanojen merkityksiin saattaa liittyä positiivisia tai negatiivisia assosiaatioita.

Materiaali koostuu sanomalehdistä Cobuild-direct korpukseen kerätystä tekstimateriaalista, joka on kerätty 1990-luvun jälkimmäiseltä puoliskolta. Ala-korpuksista 'times' sisältää tekstiä vuosilta 1995 ja 1996, kun 'sunnow' vuorostaan vuodelta 1998. Materiaali haettiin luonnonsuojeluun keskeisesti liittyvien avainsanojen avulla siten, että kukin sana ja sanapari haettiin erikseen kummastakin ala-korpuksista. Sanat ja noin kaksisataa merkkiä niiden kontekstista tallennettiin ja tulostettiin tutkimusta varten, samoin kuin kollokaattilistat ja profiilit.

Jo vuonna 1935 Firth esitti idean tutkimuksesta, jossa kulttuurisesti ja sosiologisesti tärkeitä avainsanoja niiden jakautumista eri konteksteihin tutkittaisiin. Tässä tutkielmassa eri luonnonsuojeluun liittyvien avainsanojen esiintymistiheys ala-korpuksissa, näiden sanojen kollokaatit ja ne asiayhteydet joissa sanat tulivat esille ovat tärkeässä asemassa. Tarkoituksena on seurata lehtien tapoja käsitellä luonnonsuojeluun liittyviä uutisia ja niiden keinoja vähätellä tai tukea tätä ideologiaa. Lehtiä sekä verrataan että pyritään muodostamaan yleiskuva siitä millainen näiden lehtien yhteinen asenne tätä ideologiaa kohtaan on.

Luonnonsuojeluun liittyvät uutiset ovat noin neljä kertaa yleisempiä The Times lehdessä kuin Sunissa huolimatta yhtä suuresta otoksesta. Samoin The Timesissa avainsanat esiintyvät useimmiten talous ja liike-elämäuutisten yhteydessä ja Sunissa autouutisten yhteydessä. Yhteensä molemmissa lehdissä yleisin konteksti avainsanoilla ovat katastrofit ja uhat, kuten öljyvuodot ja ilmansaasteet. The Timesin uutisointi on asenteeltaan objektiivisempää kuin Sunin, vaikka molemmat lehdet osoittavat jonkinasteista kielteisyyttä, kun avainsana viittaa luonnonsuojelijoihin.

Tutkimusmenetelmänä korpus-analyysi tarjosi mahdollisuuden tutkia avainsanojen kaikkia esiintymisinstansseja niiden kontekstissa ja tutkimusasetelman kaikkiiin kysymyksiin saatiin vastaukset. Kysymys, johon saatettiin vastata vain vaillinaisesti koski lehtien yleistä asennetta luonnonsuojelua kohtaan, johon todettiin tarvittavan kokonaisia artikkeleita lyhyiden, irrallisten konkordanssien sijaan.

Asiasanat: ideology. attitude. corpus study. focal words. key words. collocates. concordance. media.

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1 INTRODUCTION

One of the main topics of the present study is ideologies and their effect on newspaper texts. Newspapers are the main medium in which various events around the world are discussed in detail and which are available to more people than any of the other media, and, according to van Dijk (1998: 265), are often owned by the élite. Considering the power that newspapers have over everyday lives of billions of people, it is important to understand their language and its ideological undertones that convey the news to the public.

Through news articles the public form their opinion about different situations; people, places, institutions and issues. The public opinion is in part affected by the quantity of media attention; the more there are articles and comments on an event, the more important it is considered to be. But a more important factor to the public opinion is the quality of news: the number of facts and the type of language used, whether neutral, negative or positive in its attitude towards the covered event or topic. The content of a news article is a combination of factual statements (not necessarily true) and ideology. Both of these aspects are realised through language and thus the study of varying use of language is important. The fact that the same event can be described in multitudinous ways results in different styles of texts for different situations and contexts, and this forms the playground in which ideology plays a major part.

Ideologies are social factors that affect the opinions and attitudes of groups and individuals towards certain social objects, such as environmentalism, racism or coloured people. The fact that ideologies are points of view, or worldviews shared by groups of people separates them from personal opinions and attitudes. Ideologies guide a news reporter when an article or report is

written and affect the opinions and attitudes that are expressed in the resulting text.

In the present study, the ideologies of two newspapers towards nature protection and environmentalism are studied by examining the way these topics are handled in their articles over a certain period of time. This is done by using the method of corpus analysis, by selecting several key words that are connected to the ideology of environmentalism and studying the immediate semantic surroundings of such words. The corpus that is used in the present study is Cobuild-direct, the version of the Collins & Cobuild corpus that is publicly available in the internet.

The present analysis of words and their use in context is connected to the theory that writers make choices of vocabulary and terms that they are using to express their intentions and underlying ideology. When many writers write about events and issues, they come to use certain expressions to refer to these issues. Over time, these expressions are affected by the way they are used in texts and what kind of associations they accumulate. When readers read texts, they re-interpret them from their own point of view, influenced by their own opinions and knowledge. This process of language use actively reproduces and transforms society by bringing forth new ideologies or by reinforcing the old.

The topic of environmentalism was chosen for the present study because it has meaning to both the present and the future of society as can be read from a recent news report (YLE24 2000) in which the results of a study funded by the EU on global warming are presented, warning that “from now on global temperatures will be rising 0.1 - 0.4 degrees of centigrade every decade . . . South European countries will suffer the most: intensifying heat waves will be followed by water shortage, accelerated erosion and air pollution” (translated) The report adds that, even if the level of greenhouse gases could be restrained to the hoped for levels, the climate change would not be stopped and the summer resorts in southern Europe will turn into heat infernos during summers, and will thus lose tourists, while northern Europe will suffer from floods.

The choice of topic has contemporary significance also because the struggle between large companies and their profit seeking behaviour and environmentalism and environmental groups bring about two conflicting

ideologies. When reporting events and writing about topics relating to these ideologies, newspapers have to either make a choice between supporting one of them or trying to remain neutral. In the present study, an attempt is made to find out the attitude of two newspapers in this conflict, remembering that it is not only the official ideologies of the newspapers that affect their language, but also the ideologies that their writers uphold.

The data derived from the Cobuild-direct corpus in the form of concordance lists includes only a small part of the whole context of the key word. Traditionally, semantic studies have been made on material that offers more extensive context to analyse, and have thus concentrated on the overall design of the text, the order in which various facts are presented as well as word choice. Therefore, the present study is also a test to see whether this kind of semantic study can benefit from using the method of corpus analysis in which it is not the whole texts that are studied but only short segments of them.

In chapter 2, previous research in the area of language and society, word meaning and media texts is presented, as well as the theoretical background of corpus research and focal words. In the following chapter (3), the research problems of the present study will be introduced and following that, in chapter 4, the research design will be described, including a general overview of the two newspapers that will be the target of the study and the corpus that will provide the data. In chapter 5, the analysis of the focal words, their contextual groups and the ideological views that their context reveals from the two newspapers are presented. Chapter 6 will further discuss the corpus analysis method and its suitability to the present study, as well as its observed general strengths and weaknesses. The following chapter (7) will conclude the present study and supply insight into its strengths and weaknesses and provide suggestions for any future research.

2 REVIEW OF LITERATURE

There are several issues that have to be taken into account when one wishes to study the presence of ideology in newspaper language. Since ideology is a social phenomenon, one needs to consider the interconnectedness of society and language. Furthermore, the issue of the location of meaning in discourse has to be discussed, as well as the nature of the term “ideology” itself. All these issues form the basis of the present study and they are discussed in the first three sections of this chapter. The last two sections discuss the theoretical background of the methods that are used in the present study, and give grounds for their usefulness in language analysis.

2.1 Language and Society

Languages are an important factor in human societies. Only through language is it possible to communicate ideas and thoughts of such complexity that civilisation is possible. Language builds a sense of togetherness between people, allowing a more profound exchange of ideas than many other cultural products. Because of this, it is a step above such wordless ways of communication as painting, sculpture and dancing.

Writing developed a long time after the actual birth of language, but at first it was the sole privilege of the clergy and upper classes, i.e. only a small percentage of people could communicate through writing, and only these few could benefit from the unchanging nature of information once written down as opposite to spoken word which has a tendency to change the message slightly each time it is told. Later literacy spread downwards in society, to be used in urban development and merchant trade. Williams (1982: 94) says that the written language was at this point used for administration, record and contract. He continues by saying that alongside the next step, when written language

began to be used in law, learning, religion and history, the very “marked cultural divisions, already socially present in earlier societies became technically stabilized” (Williams 1994: 94). Through further steps in the spread of written language the small part of the population that was literate gained a clear upper hand. Even today in many parts of the world literacy is still below the desired 100 percent of the population.

But, as noted by Williams (1982: 95), the problems of written language and social separation are not confined to the rarity of literacy alone. According to Williams:

There are always internal constraints on any kind of notational or visual-symbolic signifying system, since these depend on an absolutely or relatively complete possession of the relevant (social or technical) systematic information. But while the objects embodying these systems are themselves relatively fixed and single, there is a correspondence (usually of the caste kind) between the internal systematic constraints and the internal (often hierarchical) social relations. (Williams 1982: 95.)

What Williams is saying here is that it is not only the ability to read that counts, but also the access to the texts themselves (i.e. nowadays access to the internet is one such crucial determinant) and possession of any relevant information pertaining to the information in the text that is accessed, i.e. background information (see the latter part of this section and section 2.2 for background knowledge). Though internet, television and radio have spread around the world in fast order, it is still the written media that is accessible to most people, not only because they can read texts whenever they want to and are not restrained by broadcast schedules, but also because books and newspapers are available also where there is no electricity.

The above leads to the question of the connection between language and society, whether they are separate and language has merely a referential connection to society and culture (used in reporting various events), or if they are interconnected in such a manner that discerning them from each other is impossible. The modern view is the latter. The usual misconception that language merely reflects society has been often abandoned, and as Stubbs (1996: 90) says, referring to the work of Cameron (1990), it is not the place of

the language to be passively reflecting the pre-existing society. Rather, language is a social practice in itself, and as such, “language actively reproduces and transforms society” (Stubbs 1996: 90). And Stubbs (1996: 91) goes on to elaborate this point, by saying that new terms in language, like *sexual harassment* or *police officer*, “do not create new phenomena: but they draw explicit attention to phenomena which previously existed.” As such, new terms only give possibilities to refer to events or things, and draw more attention to them (cf. Fairclough 1992: 3-4).

Stubbs (1996: 92) also emphasises the principle that words do not have set meanings which can be resolved in advance of their use. He claims that it follows from this that all words are somewhat flexible in their meaning and it is possible to find new uses for them. Stubbs also refers to earlier articles by Halliday (1991, 1992, 1993), who discusses the local micro-occurrences of words in texts that either maintain or slightly shift the probabilities of certain words or expressions being used in certain ways. Thus, each use of a certain word will slightly change its meaning, by bringing more attention to one of its aspects or by influencing the popular attitude towards the social object that the word is used to refer to. However, Stubbs warns against putting too much importance to a single text. Only when certain things or events are continually referred to in the same way, is there a danger that this use will affect the way we think of the thing or event. According to Stubbs, it is this repetition, constant reinforcement, “which is required to construct and maintain social reality” (1996: 92). If language use was completely free of ideological influence, this warning would not be a concern of much worry, but as will be shown below, ideologies are part of the force that affect the meaning of words.

Foucault, as early as in 1972, noted the construction of the meaning of the word ‘madness’ in psychopathology from the nineteenth century onwards. According to Foucault (1972: 32), “mental illness was constituted by all that was said in all the statements that named it, divided it up, described it, explained it”. Madness was one entity which Foucault named an **object**. According to Fairclough (1992: 41), by this term Foucault means “objects of knowledge, the entities which particular disciplines or sciences recognise within their field of interest, and which they take as targets of investigation.”

Fairclough (1992: 41) is willing to extend the meaning of object to all “the entities recognized in ordinary life”.

It is Foucault’s view that the objects of discourse are not stable, but they are produced, transformed and reproduced in social discourse. Fairclough (1992: 41) points out that due to this variability of objects, “discursive formation needs to be defined in such a way as to allow for the transformation of its objects”. Foucault proposed that “the unity of a discourse is based not so much on the permanence and uniqueness of an object as on the space in which various objects emerge and are continuously transformed” (1972: 32). Fairclough (1992: 42) completes the thought by saying that “language signifies reality in the sense of constructing meanings for it, rather than that discourse is in a passive relation to reality, with a language merely referring to objects which are taken to be given in reality”. He also blames the field of linguistics for neglecting this obvious relationship and having presupposed the referential view of the connection of language and society. It should be understood that language not only reflects the reality but alters it by bringing in ideological undercurrents. Some researchers (Mumby, Dennis K. and Robin P. Clair 1997: 181) go as far as to claim that “organisations exist only so far as their members create them through discourse.”

The change in the meaning of certain objects comes from a change in the discourse statements about them. Foucault (1972) introduces, among others, two terms that refer to important forces of change. These are **presence** and **memory**. He defines presence as “all statements formulated elsewhere and taken up in discourse, acknowledged to be truthful, involving exact description, well-founded reasoning, or necessary presuppositions” including “those that are criticized, discussed . . . rejected or excluded” (Foucault 1972: 57-58). Memory is defined as statements “that are no longer accepted or discussed” through which “relations of . . . genesis, transformation, continuity, and historical discontinuity can be established” (Foucault 1972: 98-99).

The views of Foucault and Fairclough relate closely to Stubbs’s opinion that the reinforcement through repetition when referring to certain, to use Foucault’s term, “objects” is needed to construct social reality. Furthermore, according to Foucault (1972: 98), “there can be no statement that in one way or

another does not reactualize others”. However, according to Fairclough, Foucault seemed to forget the material reality upon which language is always, in some manner, connected. In Fairclough’s (1992: 60) words, “I would wish to insist that these practices are constrained by the fact that they inevitably take place within a constituted, material reality, with preconstituted objects and preconstituted social subjects” (see also Petöfi 1984: 508-).

Another point worth taking note of is the naturalisation of the object constructs that are created in discourse. Foucault explained his term ‘presence’ as all the past discourse statements pertaining to the subject that are taken into account in a present discourse. Through this **background information** the objects and social subjects are constituted. As the constituting statements are repeated and further approved, the original **ideology** (i.e. the opinions and the worldview of those who participated in the construction of the objects, see subsection 2.2.1) gradually become naturalised. It becomes taken-for-granted background information, and as Fairclough (1995a: 28) puts it; “ideological representations come to be seen as non-ideological ‘common sense’.” According to van Dijk, Ting-Toomey, Smitherman and Troutman (Dijk Teun A. van (ed.) 1997: 147), it is exactly this ‘common sense’ that causes communication difficulties between cultures and ideological groups. Fairclough (1995a: 28) stresses that “[A]dopting critical goals means aiming to elucidate such naturalisations, and more generally to make clear social determinations and effects of discourse which are characteristically opaque to participants.”

All in all, language has become a dominant part of modern society and the ways in which people view and approach their social surroundings. The social reality is constructed through language and the way it is used to name the objects of material reality and the subjects of social reality. Thus it is important to study the ways in which certain central issues are ‘constructed’ in today’s discourse and how this might affect the way people think about them. This includes taking into account the purpose of discourse, its setting and other factors that have caused it to be produced. This critical approach is one of the main concerns of the present study and will be the topic of the following section (2.2).

2.2 Ideology and Meaning in Discourse Analysis

The focuses of recent developments in discourse analysis can be very generally divided in two factions: critical discourse analysis and descriptive discourse analysis. The dominant position of the latter was the reason for the former to emerge. Fairclough provides a definition of the term critical discourse analysis:

By 'critical' discourse analysis I mean analysis which aims to systematically explore often opaque relationships of causality and determination between (a) discursive practices, events and texts, and (b) wider social and cultural structures, relations and processes; to investigate how such practices, events and texts arise out of and are ideologically shaped by relations of power and struggles over power; and to explore how the opacity of these relationships between discourse and society is itself a factor securing power and hegemony. (1993: 135)

As one of the best known advocates of critical discourse analysis, Fairclough (1995a: 23) sees it unsatisfactory that linguists were just describing discourse situations with no heed to the possible explanations to such situations, e.g. criticism. He seeks to turn attention to those social factors that shape discourse and how that discourse in turn affects society. He (1995a: 23,44) also criticises the non-critical concept of **background knowledge**, which is practically a hodgepodge stew of ideological processes, values, beliefs, relations of power and, naturally, real factual knowledge behind a piece of discourse. In his paper from 1985 (reprinted in Fairclough 1995a: 27-53) he advocates a type of research that might actually influence how language is used and how it can be taught, by revealing these factors inside 'background knowledge'.

The reasons behind descriptive discourse analysis can easily be seen. It is simply an attempt to make language research as neutral and clear in its aims as natural sciences are generally viewed to be: to render discourse into a nice set of rules of goal-oriented forces that work inside all discourse. However, a certain amount of criticism is necessary if we want to recognise the determinants behind any position taken in a piece of discourse. Halliday reports

that there is more in discourse than mere verbal interactions: “By their everyday acts of meaning, people act out the social structure, affirming their own statuses and roles, and establishing and transmitting the shared systems of value and of knowledge” (Halliday 1978: 2).

According to Fairclough, the same idea can be read later in Giddens’s text: “There can be no theoretical defence for supposing that the personal encounters of day-to-day life can be conceptually separated from the long-term institutional development of society” (Giddens 1981: 173, as quoted in Fairclough 1995a: 35-36).

Based on this view, Fairclough (1995a: 35) claims that there is no sense to study verbal interactions as if they were separate from social structures (see also van Dijk 1997: 25-34). The inclusion of social factors is needed in case of controversial issues, like the present struggle between increasing productivity and nature preservation. In a discussion where any kind of issues are wrestled, it is not merely the clear opinions that contest with each other. As Fairclough (1995a: 28) stated in the above citation, there are “many social determinations and effects of discourse that are characteristically opaque to participants” because in “human matters, interconnections and chains of cause-and-effect may be distorted out of vision” (Fairclough 1995a: 36). This is the reason critique is needed; to make visible the otherwise invisible cause-effect relations, to root out the ideologies behind much of the so-called ‘background knowledge’. (See section 2.3 for some further elaboration of these determinants and interconnections in social discourse in the context of media discourse.)

In section 2.1, it was explained how “background information” on “social objects” (Foucault’s terms) contains ideological qualities and factual knowledge. Fairclough (1995a: 44) takes the vague term of the non-critical discourse analysts, **background knowledge**, and says that it contains ideologies and values in addition to factual knowledge much the same way that Foucault’s background information does. Fairclough (1995a: 44) says that ‘knowledge’ “implies facts to be known, facts coded in propositions which are straightforwardly and transparently related to them” (see also Mignolo 1984: 489-90, 497-8). Ideology, on the other hand, is explained as representation of the world from the perspective of some particular interest. But whereas

Foucault and critical discourse analysts recognise this, the non-critical approach rarely pays attention to these important factors that affect discourse at all levels.

Even in a case when some ideology or viewpoint is in dominant position in an institution and becomes to be seen as natural and as a norm of the institution, becoming a “transparent reflection of some ‘reality’ which is given in the same way to all” (Fairclough 1995a: 44), it does not mean that it is ‘background knowledge’. It is the responsibility of linguists to separate factual background knowledge from ideologies and beliefs. Fairclough (1995a: 45) concludes that the concept of ideology falls outside the scope of immediate discourse situation which is the focus of descriptive discourse analysts, and as such it is a weakness in their work.

The above discussion outlines how ideologies and viewpoints affect the way certain social objects, i.e. concepts, are seen or experienced in social situations and how this affects the way these concepts are handled in discourse and how this again further determines the meaning of the social objects. This is an important factor to consider when an attempt is made to study discourse in its natural setting; the ideological background cannot be omitted. But the above discussion has also concentrated solely on the theoretical level and there are no clues for a researcher on how to recognise ideological influence in discourse. To achieve this, one needs to consider the meaning aspect of language and words, and also the term “ideology” in itself requires further discussion.

2.2.1 CHANGED VIEWS ON IDEOLOGY

Fairclough (1995a: 74) lists a variety of features that may be ideologically affected in discourse. Thompson (1984) sees that the main feature is the lexical meaning of texts, and Fairclough admits that this is true, but he wants to add also presuppositions, implicatures, metaphors and coherence. Fairclough (1995a: 74) says that, for instance, “coherent interpretations of texts are arrived at by interpreters on the basis of cues in the text, and resources (including

internalized ideological and discursive structures) which they bring to text interpretation”.

According to Thompson (1984: 76), the concept of ideology has changed its meaning from the mainly critical one that it started as when Marx and Mannheim brought it up, to something akin to neutral worldview of modern theorists. However, as is visible in Fairclough’s opinion of discourse analysis, there are some analysts who do not approve of this change. Fairclough and Wodak (van Dijk (ed.) 1997: 261) stress that Foucault’s work was explicitly directed against Marxism and theories of ideology and Thompson (1984: 76) criticises the positions of Seliger (1976), Gouldner (1976) and Hirst (1979) for dissolving “the connection between the *concept of ideology* and the *critique of domination*” (original italics), which should, in his perspective, be preserved. In the present study the goal is not to take sides in this debate, but it is considered important that a certain amount of criticism is included. Thompson and Fairclough tend to stress the political aspects of ideology, and especially Thompson stresses the contrast between Marxist socialism and capitalism, which, from the point of view of the present study, seems to be too restricted. This is because environmentalism as an ideology did not originate from the so-called dominant forces of the society, and it does not fit in with either socialism or capitalism. The ideology of environmentalism argues for nature-friendly lifestyle and is thus not a political ideology.

Thompson (1984: 90) tells that particularly Althusser (1969, 1971) sees ideology as something necessary for any society, as a feature, which suggests that any one society can have only one ideology as its undercurrent, which is enforced by “the Church, schools, family, legal system, political parties, trade unions and communication network” (Thompson 1984: 91). This presents power and ideology as an exclusively top-down process, which, according to Fairclough (1992: 29), is the approach adopted by critical linguistics, and seems to leave no room for social change. From the point of view of the present study, both of these theories of ideology are too extreme. Ideology is neither a simple worldview that deserves no criticism, nor is it such a powerful and singular force which leaves no room for an autonomous action for subjects,

as Althusser and his followers, according to Thompson, make it (cf. Fairclough 1992: 87).

From the point of view of media studies, the present study will handle ideology as it is seen by Fowler (1991), but with some of the critical approach recommended by Fairclough, namely the consideration of the production process and readers of the newspaper texts. Fowler is one of those researchers whose view of ideology has been attacked by Fairclough and Thompson, because he uses the term as a near synonym of point of view, worldview or beliefs. He writes, for example, that different newspapers “would have different institutional requirements, different ideological needs and different discursive imperatives” (Fowler 1991: 42). It is clear, then, that in Fowler’s opinion, several ideologies can co-exist in society and ideology is not the powerful, Althusser’s all absorbing entity that is enforced by the ‘ideological state apparatuses’, such as church and schools. Rather, each newspaper (and other institutions and groups) can have their own ideology, or point of view, that guides the general tendency that the journalists (or press representatives or people) can adopt in their articles or speeches, i.e. the underlying ideology guides the attitudes and opinions expressed in their articles (see van Dijk 1998: 43, 49, 52). Taken this way, the term ‘ideology’ sheds off much of the burden of the highly political viewpoints of ‘capitalism and anti-capitalism’ (terms from Thompson 1984: 92) that it is often connected with and it is easier to use in general discourse analysis (rather than studies that are oriented to politics and Marxism).

However, Fowler (1991:10) goes further by stating that it is vulgar to blame news for their ideology and partiality since “institutions of news reporting and presentation are socially, economically and politically situated, all news is always reported from some particular angle.” This practically means that Fowler here adopts a completely uncritical view to the study of ideology and indeed he says that:

Anything that is said or written about the world is articulated from a particular ideological position: language is not a clear window, but refracting, structuring medium. If we can acknowledge this as a positive, productive principle, we can go on to show by analysis how it operates in texts. (Fowler 1991: 10.)

In this quote, Fowler indicates clearly that he is in no way interested in the critical analysis of texts, but, rather, he works to describe how ideology operates in texts. This is indeed an important factor in the present study as well, but in addition to this framework some attention will be given to the social surroundings in which newspaper texts are produced in an attempt to construct a critical viewpoint to the results, as suggested by Fairclough. This means that the newspaper's attitudes and opinions will be explored as well as the effect of their readership to the way social objects and subjects are constructed. However, the analysis method used in the present study does not allow a full-fledged critical discourse analysis, since it does not allow access to full texts, and thus no attempt can be made to follow all the guidelines of this kind of discourse analysis.

Because the exact definition of the term "ideology" is very confused despite the numerous studies (van Dijk 1998: vii), in the interest of the present study ideology has to be studied from the perspective of opinions and attitudes expressed by the newspapers. This is both because of the nature of the data, which disallows the possibility of studying whole texts (they are not available in the version of the corpus used for this study, see chapter 3), and because opinions and attitudes are the visible results of the underlying ideologies (van Dijk 1998: 52). Van Dijk is one linguist whose view of ideology is close to the one utilised in the present study. Van Dijk (1998: 61-62) explains that **attitudes** are evaluative beliefs whereas knowledge consists of factual beliefs. In this way he cuts apart two ingredients of the concept of background knowledge that was introduced in section 2.2. Moreover, van Dijk (1998: 63) considers attitudes as social opinions, rather than individual opinions or personal emotions, and identifies the difficulty of constructing a clear view of these attitudes, since:

What seems to be straightforward for the organisation of social opinions about other people and groups – the construction of evaluative group schemata consisting of variable hierarchies of social categorizations – is less obvious for attitudes about social issues and problems, such as abortion, nuclear energy or pollution." (1998: 63)

Van Dijk (1998: 63) explains that even though there are also groups of people who are involved in these social issues, and of whom opinions may be formed, attitudes are still more often focused on “right or wrong social practices, or even about properties of objects or nature.”

2.2.2 MEANING IN DISCOURSE

The meaning of any piece of text is not solely in the text itself, but also in the eyes of the reader. Every reader has his or her own background and opinions that affect the way they interpret any new information, i.e. it is not possible to simply “read off” ideologies from texts” (Fairclough 1995a: 71, see also van Dijk 1998: 210). Fairclough (1989: 10, reprinted in 1995a: 71) explains that:

This is because meanings are produced through interpretations of texts and texts are open to diverse interpretations, and because ideological processes appertain to discourses as whole social events - they are processes between people - not to the texts which are produced, distributed and interpreted as moments of such events. (Fairclough 1995a: 71).

Fairclough reveals, following the lines of Morley (1983), that attempts to find ideological processes exclusively through text analysis “run into the problem now familiar in media sociology that text consumers appear sometimes to be quite immune to the effects of such ideologies” (Fairclough 1995a: 71-72). Morley (1983: 167) describes how a reader has to approach every text from the text’s viewpoint in order for it to be intelligible. However, he stresses that this does not mean that the reader will automatically subscribe to the ideological position of that text, because it may be contradicted by the reader’s earlier experiences.

However, as Fairclough (1995a) goes on to explain, one needs to consider ideology from a wider perspective than one text, or one discourse event. Ideologies are not restricted to individual situation types or institutions, they cut across boundaries. Therefore one needs to study the way social objects are constructed in society in general, between a plethora of discourse types and situations. This means that, in order to study the opinions of newspapers on

politics, one should not solely study the politics –section of the newspapers, but all the texts and columns within, preferably from a long time-period. It is the whole creation of these social objects that have to be studied, and here the computerised corpora are of big help because they offer almost instant access to certain user-defined words that are of key importance in the topic at hand (see section 2.4). But this is not enough. According to Fairclough (1995a: 74), in addition to texts, one has to study the discursive practice in whole, meaning how the texts are produced, distributed and consumed, as well as the nature of the social practice within which these texts are produced.

In order to find the ideological effects in a piece of discourse, the meaning of text has to be studied. As Fairclough (1995b: 14) states, ideology is ‘meaning in the service of power’ – “ideologies are propositions that generally figure as implicit assumptions in texts”. They may be implicit, in the taken-for-granted assumptions in the text, or they may be explicit as direct attacks against some other viewpoint or ideology. Note that these actually fall under the term ‘attitude’ in van Dijk’s (1998) theory, i.e. the visible part of the underlying ideologies (see subsection 2.2.1).

But contrary to this view of Fairclough’s, many critical linguists and other language researchers have been more interested in form and structure than content. According to Thompson’s (1984: 100) critical view, “the problems of meaning and interpretation are raised but rarely pursued by discourse analysts,” whose structurally oriented studies are useful only as preliminary stage in a more developed theory and study. He goes on to stress that some linguists, like Fowler and Kress, seem to mistakenly believe that “meanings are carried and expressed in the syntactic forms and processes, that is, that the analyst can ‘read off’ meaning from the syntax” (Fowler and Kress, as quoted in Thompson 1984: 125, original double quotes around ‘read off’ replaced with single quotes). Thompson, like Fairclough, emphasises that discourse analysts should concentrate more on the problems of meaning and interpretation than they have in the past.

What seems to be the main reason why many theorists have concentrated on the syntactic form of discourse is the fact that the meaning of what is said is an obscure concept, which, according to Thompson (1984: 132) seems to be able

to dodge adequate analysis. In his words, the meaning of a statement is “an essentially open, shifting, indeterminate phenomenon” because even the simple declaration ‘The book is blue’ is a “metonymic construction, since it is not the book but its surface that is blue” (Thompson 1984: 132). Following his infatuation with domination and power in discourse, Thompson argues that different groups and individuals have a different capacity to make a meaning stick and he claims that it is this different ability that makes it easy for (dominant) ideology to stick in language (Thompson 1984: 132). (cf. Fairclough 1992: 185ff.)

Van Dijk (1998: 264) observes that “explicit expressions of ideological beliefs hardly produce any problems for the (critical) analyst” and that thus the analyst should pay more attention to the ways in which ideologies are persuasively expressed in more “indirect, implicit or subtle way” (van Dijk 1998: 264). He continues (1998: 265) that the larger the scope of discourse, the greater its ideological effects and because the media undoubtedly has the largest scope and the higher credibility of the speakers/writers and is often owned by the elite, the more important it is to study them. Van Dijk (1998: 264-276) mentions discourse structures that may carry ideological message. One of the most important of them, from the point of view of the present study, is the **local meaning**, which pays attention to the detail and level of description in the way biased discourse tends to pay great attention to ‘our good acts’ and ‘their bad acts’ and less attention to ‘our bad acts’ and ‘their good acts’, thus distancing the newspaper and its readers as a group from other groups and ideologies. This term includes also lexicalisation (the choice of wording) (e.g. the choice between a ‘freedom-fighter’ and a ‘terrorist’ etc.). In effect, such a bias of lexicalisation tends to divide people into ‘ingroups’ and ‘outgroups’. A second consideration is **style**, which pays attention to the cold formality, friendly casualness or politeness that a text may have and what kind of topics deserve what kinds of models of treatment. These, van Dijk (1998: 272) says, reveal the ideological ‘stances’ of the speakers.

Like van Dijk, Thompson (1984: 136) lists several important considerations that should be taken into account when searching for ideological effects in discourse. One of these is to study the **argumentative structure** of discourse,

as “[f]orms of discourse, as supra-sentential linguistic constructions, comprise explanations and chains of reasoning which may be reconstructed and made explicit in various ways” (Thompson 1984: 136). These reconstructions may be of help in foregrounding the ideological features of text by bringing out “their procedures of legitimation” and “strategies of dissimulation” (Thompson 1984: 136). Another consideration is the **syntactic structure**, for which Thompson (1984: 137) gives credit to Fowler and his companions. The vital role of syntactic means of passivization, nominalisation, the use of pronouns and the structure of tense “in reification within language” has to be admitted. The use of pronouns can be a very effective tool, as it is simple to divide people into ‘us/we’ and ‘them/others’. Thompson sees the deletion of the sense of history as one of the main means of domination in society:

Representing processes as things, deleting agency and constituting time as an eternal extension of the present tense: all of these are so many syntactic ways to re-establish the dimension of society ‘without history’ at the heart of historical society. (Thompson 1984: 137)

The third consideration that Thompson presents is **interpretation**, which has already been alluded to in the above text. He (Thompson 1984: 137) claims that “however rigorous and systematic the methods of discursive analysis may be, they can never abolish the need for a creative construction of meaning”. He admits that to go into interpreting something in discourse analysis is always chancy and open to dispute, but it must be done since in discourse something is always said about something and this cannot be ignored. (see also van Dijk 1998: 204-205).

Fairclough (1992: 75) affirms that there is a distinction between meaning potential of text and its interpretation. According to him, the meaning potential of a form is usually heterogeneous, a compound of separate, overlapping and contradictory meanings, so that texts are usually open to multiple interpretations. Interpreters generally cut down the number of possible interpretations by choosing one meaning, or a fitting set of alternative meanings, possibly according to the situation of use (see also van Dijk 1988a: 103 and Bókay 1984: 363-). Fairclough (1992: 77), like Thompson above,

stresses the importance of alternative wordings and their political and ideological importance. He and van Dijk (1998: 205) both give the traditional example of the choice between a 'terrorist' and a 'freedom-fighter'. Van Dijk (1998: 205) says that this lexical analysis is the most obvious and still fruitful form of ideological discourse analysis. He explains that simply by "spelling out all the implications of the words being used . . . provides a vast array of ideological meanings" (1998: 205).

There lies a problem in interpreting a piece of discourse, a problem that has been called the 'hermeneutical circle' (Thompson 1984: 133). By this Thompson means that any interpretation of language is an interpretation of something that has been already interpreted by the producer of that piece of text. Thompson (1984: 133) argues, following the reasoning of Heidegger, that what is important in interpreting already interpreted text, is not to get out of that circle, but to enter it in the right way. He also states that it is important to note the creative quality of the interpretative process: "The analysis of discourse can never be merely an analysis: it must also be a synthetic construction, a creative projection, of a possible meaning" (Thompson 1984: 133).

This suggests that in analysing a piece of discourse attention should be paid to the ways in which it could be interpreted and how it may affect the power-relations in society. To translate this into the language of the present study: It is important to note how a piece of discourse may attempt to reinforce or change the way people view environmentalism, even if this effect has not been the intention of the writer of that piece of discourse. It is in this claim that lies the logic of studying the way words and terms are used separate from the possible purpose of the authors (see section 2.4 for discussion on one method suitable for this).

In his theory, Thompson is more concerned with power-relations from the point of view of domination and as such he ignores the changing force that may come from outside conventional power-structures. He talks of using language to dominate and about the power of some dominant force to reinforce the way some objects are seen and their power over constructing meaning for words and terms. (see also van Dijk 1988a: 13). From the point of view of the present

study, Thompson ignores an important fact when he sees language and ideology in this way: language can also be used to change the way certain social objects are generally viewed, as in the case of nature preservation (present topic). In capitalist countries, the concern for nature did not originate from the powers on top of the society, since these powers consist mostly of big companies and the industry who profit from exploiting the nature and have the capital to influence political decision-making. Instead, the concern came from outside these power-relations, from, admittedly well-educated, citizens and environmental scientists who grew worried of the growing bad situation of the nature around production plants and human habitation. Thus, Thompson ignores a powerful force of ideology when he sees it simply as means of *domination from above*.

All in all, the meaning of any particular piece of discourse is, to a great degree, a subjective experience. But as many linguists assess, it is still possible to find possible ideologically laden meanings in the word choices, presuppositions, implications, coherence and metaphors that a piece of writing includes. And, as van Dijk (above) asserts, it is especially important to study the ideological undertones in the media, since they have the largest scope and the higher credibility of the speakers/writers, and because they are often owned by the élite.

2.3 Media Discourse

The previous section was concerned with the presence of ideological undercurrents in discourse and how it is interpreted by the readers and hearers of that discourse. Where these ideological undertones are at their strongest is in media discourse, simply because it has the widest public that is potentially affected by the ideologically laden meanings. Van Dijk (1998: 265) observes that in the Western media it is one of the major criteria that 'facts' should be separated from 'opinion' and that it is precisely because of this denial of ideology that ideological analysis should be made. Hall (1980: 118) says that

contemporary media studies are interested in the role which media has “in the circulation and securing of *dominant* ideological definitions and representations”. However, Connell (1980: 139) found out, in his research of television accounts of the Labour Government’s (in 1974) attempts to win and “maintain the ‘voluntary obedience’ of trade unions to the policy of wage restraint”, that there was no effort to hide the controversial reception of this economic policy. He (Connell 1980: 139) adds that particularly during “‘Phase Three’ of this policy, much of the reporting concentrated on explicit trade union opposition”. If, as many researchers posit, media indeed were in the leash of the dominant ideology, it could be assumed that there would be more of an effort to mask the opposing arguments. On the other hand, as has been stated in the previous sections, there are other ways to bring some opinions to the surface while repressing others, and these, as Connell also finds, are used widely in media. Connell (1980: 140) states that the dominant opinions and explanations of various situations are offered “as ‘common sense’, ‘moderate public opinion’, ‘rational understanding’ or ‘the consensus’” in media coverage (see also Stubbs 1996: 194).

Of course, not all newspapers use the same criteria for selecting and presenting events. Even though, according to the *Newspaper Press Directory*, the majority of British newspapers call themselves independent (Hardt-Mautner 1995: 17), impartiality is rarely achieved by any newspaper (see Gruber 1993: 485). This is because a perfectly neutral way of rendering a sentence really does not exist and however objective a journalist strives to be, he or she is in the end forced to select one of the many ways a given event may be represented (Hardt-Mautner 1995: 18). Fowler (1991: 11) gives an additional way of showing preference to a particular party and shows that different newspapers really report differently: “The pools win is more likely to be reported in the *Mirror* and in *The Times*, whereas a crop failure in Meghalaya may be reported in *The Times* but almost certainly not in the *Mirror*” (original italics). This is one of the basic sources of bias, as is also the treatment of various groups. For example, “the *Sun* is known to be consistently hostile in its treatment of trades unions, and what it calls ‘the loony Left’” (Fowler 1991: 11).

The source of this difference in presentation, the ideological difference, is discussed by Williams (1982: 192). He observes that in newspapers the cultural production, i.e. the literature and arts etc, and the capitalist way of production, i.e. privileged ownership and employment of the producers (writers), integrate. He sees that this leads to three fundamental kinds of determination in the working of the newspaper. These determining factors are (i) directly economic, or (ii) political, “in the congruence between the forms of privileged ownership and the general forms of the socio-political order” (Williams 1982: 192), or (iii) cultural, which means the “dominant interests of the social order” working only with consideration of the actual production of the newspaper.

According to this, every newspaper works according to any one of the above factors, either choosing one of them as the main influence, or, more probably, following all of them in varying degrees. For example, a newspaper working mainly according to the first factor would print only stories that would increase their income, either from the actual growth in their readership, or from some background sponsors. The latter source of income would of course undermine the ideal of free, independent press, but as the case is in several countries, certain newspapers have been known to carry the blow horn of various political parties. This kind of a sponsor would then require the paper to include the second factor into their consideration. This source of bias is observed also by Fairclough (1992: 109-110), who notes that “[n]ews media are in the competitive business of ‘recruiting’ readers, viewers and listeners in a market context in which their sales or ratings are decisive for their survival”.

However, van Dijk (1998: 230-231) raises the point that the journalists who write the articles in newspapers are individuals who may struggle with personal and interpersonal problems. They may have problems adjusting to the ideological frame of the newspaper they work with and thus their articles may show explicit and intentional deviance and dilemmas. Thus, van Dijk (1998: 231) concludes that not all “news reports in a newspaper will show the ideology or political allegiances of that newspaper.” He also observes that not all journalists necessarily always give priority to the journalistic ideologies in their reports. Van Dijk (1998: 231) warns that this may cause that in empirical research the ideologies do not seem to exist in the first place. He (1998: 231-

232) goes on to explain that quantity in itself may not be the right measure, since even one occasion of, for example, pro-racist attitude will reveal a politician's demeanour, even if he constrains himself better in other situations. The rationale here is that people who are not racist "will simply never make such a blatantly racist remark in the first place" (van Dijk 1998: 232). Thus, van Dijk (1998: 232) continues, the quality press will not make blatantly obvious remarks about ethnic minorities, but will more subtly, over time, make a negative image of cultural or ideological others by their choice of topics and their handling. This can be attained by, for example, unnecessarily mentioning the skin colour of a criminal or a demonstrator, or by talking about rioting subgroups but forgetting to mention the reason for their behaviour.

In an earlier source, van Dijk (1988b: 27) also notes that one source of bias or ideological effect may come from the fact that most of the journalists are white professional middle-class males and live in Western countries. He says that such group positions are likely to reflect in their cognitive representations of other groups and structures. This claim is supported in Caldas-Coulthard's (in Sinclair, J., Hoey, M. And Fox G. (eds.) 1993: 206-207) study of the differential representation of women and men speaking in written news. She found out that quality papers (*The Guardian*, the *Independent* and *The Times*) see women as a minority group that "is marginalised by being denied the role of speakers" and that this is a reflection of women's lack of access to power.

Researching the differences between the reporting styles of various newspapers is important, because even if they are published in the same country, they do not necessarily share the same readership and thus their ideologies influence different parts of the society. In the beginning of the subsection 2.2.1 it was noted that different readers bring their varying background information (knowledge, prejudice) into text interpretation. Morley (1983: 171) adds, quoting Willemen ("Subjectivity under siege", year of publishing not given) that people have different attitudes to sets of discourses, in that their position in the social surroundings will determine which sets of discourses given subjects are likely to encounter and in what ways they will do so. It follows from this that certain people are more likely to be found reading the *Sun* whereas someone else relies mostly on *The Times*, and as such they

basically choose the viewpoint that they like to read about, although they do not necessarily subscribe to it. Van Dijk (1998: 232) adds that people will also selectively focus on articles that give a negative image of some other group and forget possibly a larger amount of articles that posit a negative image about the group the reader belongs to.

Fairclough (1995a: 75) notes that news broadcasters may choose to represent slumps and unemployment as if they were natural disasters, preferring “intransitive and attributive rather than transitive sentence structures (‘the currency has lost its value’, ‘millions are out of work’, as opposed to ‘investors are buying gold’, ‘firms have sacked millions’)”. He (1995a: 75) says that crime stories in newspapers are written according to rather predictable scripts which “embody ideological representations of crime”. He (Fairclough 1992: 110) also notes that these kinds of linguistic devices can be interpreted as representing the aspiration of producers to fit their product to the general life style of their consumers, or the consumers they aspire to attract, but he also realises that the situation is more complex than this.

The way journalists write depends not only on their own style and preferences but also on the material from which they draw, for example press office handouts and reports from companies, governments and activist groups (see Fairclough 1992: 110ff). Furthermore, a piece of text in a newspaper has often gone through several steps in production, even with the short production time normally available and therefore the original writer’s text may have been edited, cut or otherwise changed by others. This is all part of the newspaper’s aim to make sure that the style of all the articles published follows the main course and attitudes of the paper. Only in *causerie* and other such pieces is there more leeway for the author’s personal opinions to be in evidence.

All in all, the language of newspapers is affected by many forces, from the aim to follow the current dominant ideologies and opinions, through the source material to journalists’ personal style and the preferences of the audience. Still, in the pressure of all these forces, particular newspapers tend to have their own attitude towards the reported news events. Often these attitudes are in part the result of their political stance (cf. Fowler’s comment on the *Sun*’s attitude towards the Left) and the supposed attitudes of their target-group. Therefore,

newspapers provide one of the best sources of material for socio-politically oriented discourse analysis and the only problem is to find the tools to study that material in the most efficient and objective way. The recent developments in computer technology have brought one such tool to the scientist's dusty office.

2.4 Corpus Studies

Before various corpora became available, and even after they did, many grammarians and linguists relied on their own invented examples, which they deemed typical of language, to build up their theories of language and how it is constructed. This was the case both in writing grammars and collecting data for dictionaries. The problem with this approach is obvious: the selection of the so-called typical examples was heavily biased by the personal preferences of the researchers themselves, and even if their examples followed the rules of the grammar, they were necessarily not typical examples and their typicality was impossible to check. In fact, many examples constructed by grammarians who followed this method are unlikely to ever occur in natural everyday language. Furthermore, it is easy for linguists to discard any examples that do not fit their theory of language by just not including them in their description.

With the coming of corpora linguists were forced to face even these inconvenient cases because if they were to base their work on any existing corpus and use real occurrences of language, their work and theories could be checked by anyone with the access to the same corpus, or their theories could be challenged by findings from another corpus. With corpora, linguists have a chance to view a large collection of examples of one sentence pattern, find out the most typical occurrences and include them in their description of grammar.

According to Sinclair (1991:103), such availability of examples with varying typicality makes unnecessary the classical division between de Saussure's **langue** and **parole** or Chomsky's **competence** and **performance**. Sinclair states that these dichotomies exist to allow researchers to "abstract

from the chaos of life a system of meaningful choices and to insulate the abstract system.” With corpora, this process of abstraction becomes unnecessary, since they make available multitudinous examples from which the most typical ones can be selected, and it is not necessary to construct abstract examples. In fact, Sinclair accuses the process of abstraction of being “merely the decoupling of lexis and syntax”.

Studying a language through computerised corpora can take one or more of several ways. The researchers may use the corpus of their choice to search certain sentence patterns, study the frequency of various sentence patterns, concentrate on e.g. relative clauses, or they can study certain key words, find out about the surroundings in which they occur and try to identify their collocates, or to find out how they are used, whether some words, such as *house* and *read* are used more commonly as verbs or nouns (as in such invented examples as: *to house ones relatives – a house in a good location, to read a book – it was a good read*).

Two terms that are of central importance in corpus research are **lemma** and **word form**. Lemma is the base form, the root of a word which embodies the various realisations that the word can have. It is usually written in capital letters to differentiate it from its many realisations. As such, the lemma RUN can be realised in, for example: *run, ran, running*. However, even though lemmatisation may appear to be a simple process, one runs into trouble when studying words of close semantic relationship. It is difficult to decide, for example, whether the word forms *class* and *classification* are both represented by the same lemma CLASS (Stubbs 1996: 172). Stubbs (1996: 172) states that even though traditional linguistics does not include the latter realisation in the realisations of the lemma, its semantic relation to the said lemma is culturally important.

Sinclair (1991: 68-69) shows that one form of a lemma is usually much more frequent than the others. Stubbs (1996: 172) gives as an example the lemma EDUCATE, which occurs in his 130 million word corpus over 27 000 times in the realisation *education*, but only 3 450 times as *educated*, 858 times as *educate*, 463 times as *educating*, and only 29 times as *educates*.

When one makes a corpus search with one word to draw out examples of that word in actual use, the central word form under study is often called the **node word**. The corpus search program lists every instance (if required) of the studied node word, and, if asked, also its common inflected forms, as they appear in the corpus, including some of the context. The context, i.e. the surroundings in which certain words occur, usually reveals other words that seem to appear more often near to the node word than others. Such words are referred to as **collocates**. However, the node words and their collocates do not form fixed expressions (e.g. idioms), it is only that there is a greater likelihood for these words to co-occur than others.

Firth (1957: 11,14) is the source of the famous definition for the term **collocation**: it is ‘the company a word keeps’. The collocates are searched from around a node word, e.g. the word that is under study in corpus research. The **span** of words on either side of the node word amongst which collocates are searched is usually one to four words, although Sinclair (1991: 106) proposes up to five words to be counted inside the span. When a researcher types in the node word under study, the computer will produce a list called the **concordance**. In this list of occurrences, the node word is centred and on its both sides a short span of the textual context is given. Upon prompting, the search program will also produce a list of the most common collocates of this node word, usually based on their absolute frequency in the surroundings of the node word in the corpus.

A further collocational phenomenon, **semantic prosody**, was identified by Sinclair (1991). It means that the collocation spans over more than one word in the neighbourhood of the node word. Sinclair (1991: 112) gives the well-known example of the lemma HAPPEN which is usually “associated with unpleasant things, accidents and the like”. However, one must remember that this is not the only company that the word can keep; it is only noticeably usual.

Jackson (1988: 96-97) notes that these collocates form much of the meaning of the node words and vice versa. He gives as an example the word *false* and claims that part of the meaning of this word is that it appears regularly with *teeth*, *expectation*, *passport* etc. Jackson surmises that part of the meaning of *false* is then that it appears regularly with these words. Yet, the strength of the

likelihood need not be the same in the other direction; even if research proved (which it has not) that the node word *false* appears most often with the noun *aunt*, it need not be that upon researching the word *aunt* we were to find *false* as its closest collocate.

Jackson (1988: 99) also gives an intuitive (he does not use a corpus for this) example of the adjective *rancid* and shows that it collocates extremely strongly with *butter* but with only a few other nouns (e.g. *bacon*). Thus when we make a search into a large corpus for *rancid*, we may find many examples of it collocating with *butter*, but when we make a similar search with *butter*, we will probably find a lot more variation in the company that this word keeps. This is also the reason why *rancid butter* is not viewed as a fixed expression. It would be one if *butter* did not take other modifiers than *rancid*, or if it was the most common of them.

However, remembering the difference that we see between the various realisations of a single lemma, we should also expect that there is a difference in the company that any such word form acquires. In fact, Stubbs (1996: 172) studied the above-mentioned realisations of the lemma *educate* and found out that the form *education* collocates primarily with words that denote institutions (e.g. *further, higher, secondary, university*), and the form *educate* collocates with near synonyms, such as *enlighten, entertain, help, inform, and train*.

Following this, it is clear that all words occur in typical collocations from which we can derive the characteristic associations and connotations that they have, “and therefore the assumptions that they embody” (Stubbs 1996: 172). Native speakers can only roughly use their intuition to identify collocates; they are even worse at identifying them all. This is where we need computerised corpora: to make objective research into the real surroundings in which words occur.

However, when we make a corpus search for any one word, and order the program to calculate this node word’s most common collocates, what we get is a list that gives the highest frequency scores for such words as *a, an, the* (in case of nouns and noun phrases) and other grammatical words such as *of, to, at* etc. These are of no importance when searching for collocates, except if we are interested in finding out whether certain noun is most often used in a definite or

indefinite sense. As such they are usually dropped out from frequency lists as well as words that occur only an insignificant number of times with the node word. Sinclair (1991: 106) suggests that a cut-off point of, for example, less than ten percent of the frequency of the node should be determined

The next steps of an automatic process of searching for and analysing collocates, as proposed by Sinclair (1991: 106), includes weighting the remaining collocates in importance according to their overall frequency in the corpus. This means that an overall rare word gets more weight than a very common one when its collocate status is considered. After this, each line of the concordance list is re-examined for the typicality of its collocates, and by adding up the above-mentioned weightings. After this, the concordance list of example sentences is resorted so that the most typical instances come to the top.

Sinclair (1991: 106) says that after this point the research continues on a rather subjective basis. The researcher may e.g. classify the example sentences into groups on basis of their similarity on structural grounds or semantic grounds, or on basis of the collocates.

Although corpus studies often fall into the same group with so-called 'content studies' and is as such susceptible to criticism for its 'merely quantitative' findings, Williams (1982: 19) points out that, while the data from such studies are often in a need of further interpretation, they "are essential to any developed sociology of culture, not only in modern communications systems, . . . but also in more traditional kinds of work." By modern communications systems, Williams refers to all communication acts, including the specialised form "the media" (1982: 9).

While using single words as a basis of a corpus study may provide interesting results, it could be more interesting to research a group of words that revolve around one particular topic. Firth (1935, reprinted in 1957) proposed such a study method in the first part of the 20th century, but, as of yet, no such studies appear to have been made. The usefulness of such studies as Firth's proposed and the concept of focal words are discussed in the next section (2.5).

2.5 Focal Words

As a concept the study of certain key words in their contexts is not a new idea, but there have not been many such studies made since the idea first started to emerge. One reason for this has been the lack of proper means to carry out such a research. Only the recent development in computerised corpora has provided linguists with the appropriate resources to find and study single words in their context. Still, some studies have been made even without the help of personal computers (see Williams 1973, 1976, 1985) and the idea itself emerged long before personal computers could even be dreamed of (Firth 1935).

Firth (1957: 13), in the early part of the 20th century, called forth a method of language study that did not become practical until the age of personal computers. He speaks of “contextual and sociological technique” in which such culturally important words as *work, labour, trade, employ, occupy, play, leisure, time, means, self-respect*, their derivatives and compounds should be studied in “sociologically significant contexts”. He adds other fields of interest besides those given above, seeing as enlightening to study “words particularly associated with the dress, occupations, and ambitions of women, or the language of advertising ... or of political movements and propaganda.” (Firth 1957: 13). All of these situations of language use have wound up under study over the past years, but, apparently, there are not yet such methodological studies as Firth was interested in. In the present study the focus is on environmentalism and the words associated with it. Environmentalism can be seen as one realisation of a political movement or of propaganda, although it is actually a much more general advancing force in the modern world and not a political ideology at all.

Firth called the culturally and sociologically important words **focal** or **pivotal words** already in his famous paper from 1935, ‘*The Technique of Semantics*’ (republished in 1957: 7-33): “Research into the detailed contextual distribution of sociologically important words, what one might call *focal* or *pivotal* words” (1957: 10; emphasis original). Another term for a similar

phenomenon is later given by Williams (in Stubbs 1996: 166-168), who uses the term **keywords**. According to Stubbs (1996: 166), it seems that Williams was not familiar with Firth's proposal or work, but what he studied was much the same, although there were differences. It is apparent, for example, that unlike Firth proposed, Williams attempted to find out all the words that embody western concept of culture, whereas Firth was more interested in specialised studies into various culturally and sociologically important fields of words.

According to Stubbs, Williams' work *Keywords: a Vocabulary of Culture and Society* consists of over a hundred short essays, each of them concentrating on 'a critical area of vocabulary' (Williams 1976: 23 in Stubbs 1996: 166). Stubbs views Williams's work as rather politically oriented, since many of his keywords concentrate on the said field, particularly on sociology (cf. Williams 1982) and as such this orientation is understandable. Stubbs categorises Williams' keywords into sets that "have to do with society and how it is conceived" (1996: 166). Some of the keywords Williams studied concern the organisation of society in families, education and employment as well as nation. Some other keywords have to do with high culture and politics. Stubbs lists some of Williams' keywords, including *aesthetic, art, fiction, literature, alienation, capitalism, hegemony, philosophy* and *unconscious*.

Stubbs (1996: 166) analyses Williams' work *Keywords* and recognises some of the problems that Williams had to contend with while compiling his book. One such problem is the fact that the categorisation of the words into different classes is made difficult by the fact that many of the words are semantically ambiguous. Some such difficulties were presented by the words *culture* and *cultivated*, which may be used both in the sense of arts and in the sense of agriculture. Williams recognised this problem and made numerous cross-references between various keywords, "for example, educated had cross-references to culture and intellectual, and mentions also un-educated" (Stubbs 1996: 166).

According to Stubbs (1996: 167), Williams concentrated on "the synchronic complexity and variation in the meanings of words, which are the result of diachronic change" and that he used as the source of his data the *Oxford*

English Dictionary which explores just these aspects of words. It has to be realised that Williams did not have, at the time, at his disposal the CD-ROM version of the dictionary, but only the multi-volume printed version. As such, his study could be greatly improved in the modern day, for example by, as Stubbs recognises (1996: 167), finding all the various specialised hyponyms of the word *work*, such as *toil*, *labour* etc. Still, even with such restricted possibilities in his research, Williams was able to find and present many fixed, or almost fixed expressions with the word *class* in them (e.g. *class war*, *class consciousness*, *lower class*). Stubbs (1996: 167-8) argues, however, that only with modern corpora one can receive trustworthy information about the frequency and significance of such phrases. Moreover, it is obvious that a corpus of even a mediocre size can offer many other such phrases not necessarily included in dictionaries.

Stubbs discusses also Williams' earlier work from 1973, *The Country and the City*, in which Williams talks about "the geographical and cultural divisions which are represented in literature, and which become to be accepted as conceptual grids for thinking about societies" (Stubbs 1996: 168). This relates to the claim behind many sociological analyses of language, where the emphasis is on the theory that when words and phrases are constantly used in specific ways and are referred to in specific contexts, the words become weighted heavily with the contextual connotations in which they have occurred in the past and this reflects to their meaning in later texts in which they occur.

Stubbs relates that in his work, Williams explores the "meanings, associations, images and connotations" of two culturally very heavily laden words, *country* and *city*. COUNTRY, Stubbs recounts, is ambiguous in its meaning, because it can mean either "nation/state" or "nature". The connotations of the word are, for example: "rural *England's green and pleasant land*, ... the recurrent myth of a happier and more natural past ... *the good old days*, the pastoral view of a simple, organic, innocent, Eden-like, rural community ... but also a stereotype of backwardness and of the boorish peasant clown" (Stubbs, 1996: 168).

TOWN and CITY, on the other hand, carry a connotation of "progress and modernity, but also noise, dirt, worldliness and ambition" (Stubbs 1996: 168).

According to Stubbs, Williams' main source is British literature, including such names as Jane Austen, Thomas Hardy and Charles Dickens. As this study of Williams' was also done manually without the help of modern corpora, it is clear that there is a lot of researcher's intuition at work in the results. Williams had no reliable way of recognising important collocates around the node words that he was interested in. But, while much of Williams's book seems to be the result of subjective feelings that he has got while reading English literature, much of what he says is useful from the point of view of corpus-studies.

Stubbs (1996: 171) discusses also the work of Campanelli and Channell (1994), who explored the way "ordinary people understand and use the term *training*" by finding all the instances of this word in the Cobuild corpus. They studied all the forms of the lemma TRAIN (training, train, trains, trained, trainee, trainees) and found out that the main fields of activity, in which the word forms were used, were related to animals, sports and occupations. What makes this study interesting from the point of view of the present study, is that it also contrasted the findings between a quality newspaper and a tabloid. Among newspapers, the meaning 'occupations' took place in 42 % of uses in *The Times*, while in only 24% of uses in the tabloid *Today*, in which the commonest use was the meaning 'sports'.

In the present study, the focal words will be chosen from the context of nature preservation, and their use will be studied in a corpus that contains issues of *The Times* and the *Sun* newspapers. Considering that there appears to be neither previous research on this issue, nor any that concentrate on focal words and ideology in a critical manner, the present study is an important test of the suitability of the corpus method for this purpose, especially because it seeks to study two important newspapers with an extensive reading public.

3 RESEARCH PROBLEMS

There are three major objectives in the present study. The first is to test the method of corpus analysis and its suitability to the study of focal words in context.

Firth (1957) proposed a study of culturally important words in their context, stating that it would be interesting to study words that are associated with, for example, political movements or propaganda (see section 2.5 above). As mentioned in section 2.4 above, Firth is also the one who came up with the definition for the term collocation, saying that it means “the company that a word keeps” (1957: 11, 14). Thus it would seem that the method of corpus study, in which certain focal words can be searched from a vast bank of actual language in use, is very much what Firth had in mind when he proposed this type of study. However, Firth had no access to any kind of computers or corpora when he made his proposal and thus this method has not been tested before, at least in the way Firth intended (see section 2.5).

The second major objective of the present study is to explore the language of the media. As was explained in section 2.3, van Dijk (1998) has stated that since one of the major aims of the western media is to separate facts from fiction and ideologies, it is important to study how well they succeed in doing it. It was also observed that several researchers have noticed that the media uses various methods to bring some viewpoints and ideologies to the surface while suppressing others, including offering some things as ‘common sense’ or as the ‘moderate public opinion’. In the present study, it is the attitudes of two newspapers towards the ideology of environmentalism and environmental issues that are studied and an attempt is made to find the ways in which these newspapers support or downplay various sides of this ideology, or whether they are able to remain objective in their treatment of the subject.

The third objective of the present study is the result of the fact that the material for this study come from two different newspapers, a quality

newspaper, *The Times*, and a popular newspaper, the *Sun*. These newspapers offer a chance to study the way modern press media treats environmental issues as well as the way these two newspapers differ in their attitudes and ideologies from each other. Therefore, the third objective is to find out if there is a consistent difference in the way these two newspapers treat the subject of environmentalism, as is suggested by the statement by Fowler quoted in section 2.3. He (1991) gave examples of the differences between quality newspapers and tabloids, showing that the choice of news material and its treatment are a definite factor in the difference between these newspapers.

4 RESEARCH DESIGN

The following sections will give detailed information on the data used as the basis of the present study, both the benefits offered and the limitations inflicted by it, as well as the procedures that were used in retrieving the needed information from this data. First, the details of the Cobuild-direct corpus will be discussed in section 4.1 as they pertain to the objectives of the present study. The following section (4.2) will introduce the two newspapers from which the data is derived from, giving information about the possible sources of bias that will be further discussed in the analysis. The last section (4.3) will describe the data retrieval methods by introducing the focal words that are focussed on environmental issues and that were chosen as the material for the further analysis, and by outlining the steps of how the data was handled a priori to the actual analysis.

4.1 The Cobuild-direct corpus

The modern computerised corpora allow for an easy access to vast databases of language as it is actually used and powerful search routines to find the specific key words from this great amount of material. The Cobuild-direct is the publicly available version of the Bank of English corpus and it can be accessed over the internet. This corpus includes several databases of language from various sources, including newspapers, books, radio transmissions, TV-broadcasts and interviews.

The search program, called Concordance program, offers an option to choose any one of these sub-corpora for deeper study. Since the aim of the present study is to investigate media texts, the two sub-corpora, *times* and *sunnor*, were selected. A third option would have been the *Today* newspaper, but since it has folded up, it was not included in the present study. These sub-

corpora were accessed one at a time in order to keep the search results separate from each other. The *times* sub-corpus includes over 5.7 million words from *The Times* and *Sunday Times* published by News International Newspapers, London. The *sunnow* sub-corpus includes over 5.8 million words from the *Sun* daily newspaper and its Sunday version *The News of The World*, published by Times International Newspapers, London.

The data in the *times* sub-corpus is collected from years 1995-1996 and the *sunnow* sub-corpus is from 1998. The Cobuild-direct corpus does not include all the issues of these newspapers that have been published during these years, only an extensive selection of them. The difference in the publication years of the newspapers included in the sub-corpora is a possible limitation to the present study, but the data offered by the Cobuild-direct corpus gave no other possibility.

The Cobuild-direct concordance program can only show about 80 letters (spaces included) of the context of the node word on a computer screen, but the program offers an option of saving the list on a file with up to 500 characters of the context included. The program also gives an option of viewing and saving collocate lists of the node words, sorted by T-score, as well as viewing and saving the so-called 'collocate profile', or picture in which the typical positions of the various collocates can be seen. For the benefit of those who have not had previous experience of concordance lists, there is an example of the type of list used in the present study in Appendix 1 (modified), similarly an example of a collocate profile is presented in Appendix 2. Several examples of the collocate lists will be presented in the analysis itself.

4.2 *The Times and The Sun*

According to the web-site of the Express Newspapers Research Department, British daily and Sunday newspapers "can be split into three very distinct groups - Quality, Middle Market and Popular - each with its own

characteristics” (2000: 1). The same source states that *The Times* is one of the quality newspapers and the *Sun* is a popular newspaper.

The Express Newspapers Research Department (2000: 1) state that quality newspapers share the following characteristics: they are low-circulation newspapers with an up-market readership. They are in a so-called broadsheet format and have a high cover price and high news content. On the other hand, popular newspapers have a high circulation and a down-market readership. They are in a so-called tabloid format and have low cover price and a high content of pictures, features and gossips.

According to the National Readership Survey (NRS) (2000: 1), the *Sun* is the most popularly read newspaper in Britain with over ten million adult readers and with an adult coverage of 21.8 %. On the other hand, *The Times* is the second most popular quality newspaper with slightly less than two million readers and an adult coverage of 4.2 %. Similarly, the Sunday version of the *Sun*, *News of the World*, is the most popular Sunday newspaper with over 11.5 million adult readers and an adult coverage of 25.3 %, whereas *The Sunday Times* has about 3.8 million adult readers and an adult coverage of about 8.2 %. The actual circulation figures are only about a third of the readership figures given above.

Both newspapers, *The Times* and the *Sun*, are owned by the News International, which is a subsidiary of the News Corporation. According to Underwood (2000: 4) the News Corporation is, in turn, owned by Rupert Murdoch and has 37 % share of daily and 39 % share of Sunday newspaper sales in the UK.

Because of the fact that both of the newspapers examined in the present study are owned by the same media corporation, it is probable that the newspapers do not differ from each other in their stance towards environmental issues. A great deal of any observed difference can probably be explained by the general differences between quality and tabloid newspapers, rather than by clear ideological differences. Thus, this is a possible hindrance to one of the research questions stated in chapter 3: to find differences in the attitude of these newspapers towards environmentalism. However, it does not affect the two major research questions about testing the corpus analysis method for the

purpose of the focal words and examining the general attitude of the two newspapers towards environmentalism.

4.3 The Research Procedure

As was stated in the previous chapter (3), one of the objectives of the present study is to determine the differences between the two newspapers, *The Times* and the *Sun* in the way they position themselves in the topic of environmentalism. At the end of the previous section (4.2) it was noted that these newspapers are owned by the same corporation and that the differences between them may be less ideologically significant than the differences between some other two newspapers. However, this is an inadequacy inflicted by the fact that all three newspapers included in the Cobuild-direct corpus are owned by this same corporation and there was no possibility to access other corpuses. Furthermore, since these newspapers are not actually produced at the same premises or by the same editors or journalists, and they have different readerships, it is probable that this will not be such a hindrance to the purposes of the present study after all.

According to the procedure of the corpus analysis method, the material for the present study is gathered by choosing a selection of key words, retrieving all the cases in which these key words are used in the two sub-corpora and by categorising and studying these instances by hand.

The key words, or focal words, were selected so that they are all connected with the topic of environmentalism. Several texts pertaining to environmentalism were studied and the key words marked. In addition, specialised help and suggestions were received from the Department of Biological and Environmental Science at the University of Jyväskylä in the final selection of these focal words. This resulted in the acceptance of ten focal words and their several derivatives and some word pairs that relate to the topic of environmentalism. These words and phrases are: *environment*, *pollution*,

emission, recycle, ecology, forestry, pesticide, biodiversity, toxic waste, climate change, greenhouse effect and greenhouse gas.

The words and phrases mentioned above were used as key words when retrieving data from the Cobuild-direct corpus. Since these words have several derivatives that needed also to be retrieved from the two sub-corpora, so-called wildcards had to be used. One of the most common wild cards is ‘*’, which is added to the end of a preferred character string to tell the concordance program that all the word forms starting with the character string, up to the wild card, should be retrieved. The following list will elaborate this issue. The search words and phrases entered to retrieve concordance lists and collocations from the two sub-corpora were the following:

recycl*	includes all the word forms starting with “RECYCL”, including recycle, recycling, recyclable etc.
ecolog*	includes all the word forms starting with “ECOLOG”, including ecology, ecological etc.
pollution	includes only this word form.
pollut*	includes all the word forms starting with “pollut”, including pollute, pollutant etc. Form “POLLUTION” was removed manually.
environment	includes only this word form.
environmental	includes only this word form.
environ*	includes all the word forms starting with “ENVIRON”, including environmentalism, environmentalist as well as typos, in which the ending of the word was mistyped etc. Forms “ENVIRONMENT” and “ENVIRONMENTAL” were removed manually.

emission*	includes all the word forms starting with “EMISSION”, including emission, emissions.
biodiversity	includes only this word form.
forestry	includes only this word form.
pesticide*	includes all the word forms starting with “PESTICIDE”, including pesticide, pesticides.
toxic+waste	includes all the examples of “TOXIC WASTE”.
climate+change	includes all the examples of “CLIMATE CHANGE”.
greenhouse+effect	includes all the examples of “GREENHOUSE EFFECT”.
greenhouse+gas*	includes all the examples of “GREENHOUSE GAS”, “GREENHOUSE GASES” and “GREENHOUSE GASSES”.

The results of these searches were several long stretches of concordance lines, the longest of which included almost 400 examples of word use. As is visible from the above list of search terms, some derivatives of some focal words had to be separated from the rest of the word forms, simply because there were so many of them that separating them afterwards by hand would have proved laborious. This separation of the various derivatives is necessary because Stubbs (1996: 172) observed that different realisations of a single lemma may have very different collocates and meanings (section 2.4). In addition to the retrieval described above, all the numeric information about the commonness of the key words in the corpus and the number of examples found were written down for future reference.

As was observed in section 4.1, the Cobuild-direct corpus offers a chance to save concordance lines with up to 500 characters of the context present. For the purpose of the present study, 200 characters of context (circa 100 characters on both sides of the key word) were deemed enough and all the concordance lists were thus saved on separate files and downloaded to the local computer. The

collocate lists and collocate profiles, sorted by T-score, were also saved on files and downloaded to the local computer. The T-score is, briefly, a measure of the confidence that the change in frequency or the collocate when the node word is present is statistically significant. The use of the T-score should, when the data is extensive enough, eliminate many such collocates that have no statistical importance, such as articles and functional words.

Since the third aim of the present study is to explore the differences in the two newspapers, such focal words that did not appear in one or the other of the studied sub-corpora were excluded from the further analysis. Node words that did not appear in the *sunnow* sub-corpus were ECOLOGY, BIODIVERSITY as well as one of the focal word phrases, TOXIC WASTE. These were also relatively rare occurrences in the *times* sub-corpus, except ECOLOGY which appeared 41 times.

Next, the concordance files were loaded into a word processor and laid out so that printing them out would be less problematic. This included also the changing of the node words into boldface font for easier identification and marking each of the concordance lines with a code that would enable their source (*times* or *sunnow*) to be recognised even after they have been separated from each other in the subsequent manual handling. Appendix 1 presents an example page of the kind of edited list used in the present study.

Following one of the suggestions of Sinclair (1991: 106, see section 2.4) on the account of the study methods after the data has been gathered, before the in-depth analysis itself, the concordance examples were read through and an overview of the contexts in which the focal words appeared was gained. This process allowed for the creation of the semantic context groups that are the basis of the analysis of the study.

The following chapter (5) will apply the method of corpus analysis to study the immediate context of word that have a central place in environmental discourse and to find out if there are differences in the attitude expressed between the studied sub-corpora. One of the critical questions that has to be answered is whether the limited context that the various corpora can provide is enough to provide indisputable evidence about the ideological standpoint of the two newspapers. After the study of the two sub-corpora in chapter 5, chapter 6

will discuss the problems and successes that using the corpus analysis method inflicted on the present study and gauge the usefulness of the method for this kind of study in future projects.

The present study will present a mix of quantitative and qualitative results, but the major aim of the study is to describe the contents of the two newspapers. The quantitative part is presented by the number of instances the focal words appeared in the two sub-corpora, presented in subsection 5.1. Quantitative and qualitative analysis is mixed in subsection 5.2 with the study of qualitative context groups of the focal words, as proposed by Firth (see section 2.5). Subsection 5.3 relies wholly on qualitative analysis, as does the discussion of the corpus method in chapter 6.

5 ANALYSIS

The first section (5.1) will concentrate on the general numeric data of the focal words and their frequencies in the studied sub-corpora, the *times* and the *sunnow*, and establish possible main trends in the focus of the two newspapers as they pertain to environmental issues. The following section (5.2) will study each of the focal words in turn, in the order of their significance and their absolute frequency in the two sub-corpora. This section will deal mainly with the environmentally weighed contexts in which the node words are used in the newspapers and gives numeric data and concordance examples of these characteristics. In the end of this section, an overview of the focal words and their contexts will be presented. Section 5.3 will further explore the possible negative attitudes found in the newspapers, either the opinion of the newspaper itself or a reported attitude of some other party, towards the various concerns of environmentalism, giving several examples of such concordance lines that may be negatively assessed by the reader.

5.1 Focal Word Frequencies in the Sub-Corpora

The two sub-corpora of the Cobuild Direct corpus, *times* and *sunnow*, supplied a large collection of concordance lines for each of the studied focal words. In Table 1 below only such focal words are present that appeared in both of the corpora.

Table 1: Number of focal word groups in each sub-corpus and their percentage of the total amount in that corpus.

Lemmas	times		sunnow	
	no	% of tot	no	% of tot
ENVIRONMENT	672	64,3 %	151	61,6 %
POLLUTION	201	19,2 %	50	20,4 %
EMISSION	59	5,6 %	19	7,8 %
RECYCLE	56	5,4 %	12	4,9 %
FORESTRY	30	2,9 %	4	1,6 %
PESTICIDE	20	1,9 %	2	0,8 %
GREENHOUSE GAS & EFFECT	4	0,4 %	6	2,4 %
CLIMATE CHANGE	3	0,3 %	1	0,4 %
Total number of instances	1045		245	

The total number of instances given in Table 1 above reveals the fact that the node words are in much greater use in the *times* sub-corpus than they are in the *sunnow* sub-corpus. This indicates that the discussion on the environmental concerns is generally not one of the topics of interest in the *Sun*. However, for each given lemma, the proportion of instances in each sub-corpus compared to the total number in that sub-corpus are of about the same magnitude (i.e. in both of the corpora about 60 percent of the words that relate to environmental causes are derivatives of the lemma ENVIRONMENT). This holds true for almost all of the lemmas so that the table gives them in the order of absolute frequency in both of the sub-corpora. The only exception to this is professed by the lemma phrases GREENHOUSE GAS and GREENHOUSE EFFECT that appear in the *sunnow* sub-corpus more often than the two lemmas above it. Relying only on these numbers, it would seem that the greenhouse gasses and effect are seen as a more important topic in the *Sun* than issues relating to the forestry and pesticides or at least as important. In *The Times*, the situation is different and, in absolute frequencies, the greenhouse topic is handled far less than the two topics above it (only four instances compared to the twenty and thirty of the others).

The difference in the total number of instances of the focal words in the sub-corpora is not due to any difference in the size of these corpora. The *times* sub-corpus contains 5'763'761 words whereas the *sunnow* sub-corpus contains

as many as 5'824'476 words. The frequencies for each of these focal words in the whole sub-corpora are given in Table 2 below.

Table 2: the frequencies of the focal words in both of the sub-corpora.

	times 5763761 words	sunnor 5824476 words
ENVIRONMENT	116,6 in million	25,9 in million
POLLUTION	34,9 in million	8,6 in million
EMISSION	10,2 in million	3,3 in million
RECYCLE	9,7 in million	2,1 in million
FORESTRY	5,2 in million	0,7 in million
PESTICIDE	3,5 in million	0,3 in million
GREENHOUSE G&E	0,7 in million	1,0 in million
CLIMATE CHANGE	0,5 in million	0,2 in million

The finding that the words potentially pertaining to environmental causes are much less common in the *sunnor* sub-corpus than they are in the *times* sub-corpus is further validated in Table 2. Since the *sunnor* sub-corpus is actually slightly larger than the *times* sub-corpus, the difference in the number of instances of potentially environmentally weighed words cannot be explained by the generally smaller amount of news texts in the tabloid. Rather, it is evident that environmental concerns are given less attention in the latter newspaper.

After an initial study of the concordance lines themselves, all those instances in which the node word did not refer to environmental causes were removed (Table 3). These were especially numerous in the case of ENVIRONMENT because it is used widely in contexts other than the ideology under study, for example in phrases like 'office environment'. We will come back to these in the subsections that deal with individual focal words.

Table 3: Number of focal words in every group after those words that do not pertain to environmental concerns have been removed.

Lemmas	times		sunnow	
	no	% of tot	no	% of tot
ENVIRONMENT	325	49,5 %	72	45,3 %
POLLUTION	189	28,8 %	48	30,2 %
EMISSION	57	8,7 %	19	11,9 %
RECYCLE	37	5,6 %	11	6,9 %
FORESTRY	21	3,2 %	1	0,6 %
PESTICIDE	20	3,0 %	1	0,6 %
GREENHOUSE GAS & EFFECT	4	0,6 %	6	3,8 %
CLIMATE CHANGE	3	0,5 %	1	0,6 %
Total number of instances	656		159	

The numbers in Table 3 show that the lemma ENVIRONMENT was most often used in meanings other than that of environmental concerns. Its frequency in this sense dropped by more than half (51,6 % in the *times* and 52,3 % in the *sunnow*) in both of the sub-corpora. At the same time, the lemma's share in both of the sub-corpora dropped from over 60 % to less than 50 %. This indicates that the lemma in question is not very focussed in its meaning. Nevertheless, it is by far the most common lemma included in the present study. Other lemmas that experienced significant drops in numbers were RECYCLE and FORESTRY, although the former dropped mainly in the *times* sub-corpus. The causes for these reductions will be explored further in the following subsections that deal with the individual focal words. It should be noted, however, that after the removal of the concordance lines in which the node word was not used in the desired meaning, neither of the sub-corpora lost more than 40 % of the total number of instances. The *times* sub-corpus retained 62,8 % of the cases and the *sunnow* sub-corpus retained 64,9 % of the cases. In addition, this drop was caused mainly by the lemma ENVIRONMENT; for the other lemmas, the drop was only about 10 % in both of the sub-corpora together. These results imply that the focal words chosen for this study do indeed represent the core vocabulary that is used in discussion of environmentally weighed issues.

5.2 Words with an Environmental Focus

After the study of the main trends of the data supplied by the Cobuild-direct corpus, each of the focal word concordance lists were studied separately. The first part of this analysis included allotting the concordance into different groups depending on the context in which the focal word appeared. This was done to establish the meaning of the various focal words when they are used in environmental context. After this, typical examples were drawn out of each of these groups for further study. Examples that professed possibly negative attitude were studied also separately and are examined in section 5.3.

The groupings into which the concordance examples were allotted were decided after an initial study of the data and they are the following:

threat&damage

This group included all the concordance lines in which the context reported a threat or damage to the environment, including disasters, hazards and shocks, as well as cases in which, for example, pollution might have caused health problems etc.

econ&business

The concordance lines that were allotted into this group demonstrated a context that dealt with the problems of the industry in coping with the environmental and pollution issues, as well as all such examples that drew attention to the effect of the new anti-pollution technologies to modern economics.

aware&argument&concern

The context in the concordance lines that fell into this group emphasised environmental awareness, either reporting that such an entity existed or expressing concern over the issue.

plan&project

This group includes examples in which the context around the node word reported or discussed environmental plans and projects. These were especially numerous when the lemma of the focal word was RECYCLE.

politics

All of the concordance lines that professed a context that reported a political speech, government decision or other politically weighed topics relating to environmental issues were assigned into this group.

science

The concordance lines allocated into this context grouping dealt with scientific studies and commentaries and reports on environmental studies. This was the most common topic in case of the node word EMISSION.

control measures

The context of these concordance lines alludes to various control measures taken against environmental hazards or pollution, including closing down streets and power plants.

list of concerns

This grouping was useful only for some focal words, but it includes the examples in which the context lists the node word with other concerns of modern society, such as education and consumer rights.

cars, golf

Cars and golf were high in the list of favoured topics in the newspapers and this group includes all such cases in which the

context was related to the discussion on the environmental effects of these issues.

env. groups and agitators

This group includes the examples in which the context around the node word is used to refer to environmental groups or activists and their reactions to certain issues.

law cases

Those concordance lines in which the context of the node word discussed certain law cases or legal issues fell into this group.

various

In addition to the groupings above, there were several other kinds of contexts in which the node words appeared, but as these were not useful as far as most of the other focal words were concerned, these cases are handled separately for each node word as they are studied individually.

Not all of these groups were necessary in each case of the focal words and in many cases only a few of these groups were evident. Furthermore, the largest of these groupings is the 'various' group simply because the words under study were used in so many individual cases that they could not be given their own groupings. In the following subsections, the node words are examined one by one and their meaning in environmental contexts is studied as well as the fact how focussed these words are towards environmental issues.

5.2.1 'ENVIRONMENT' AND ITS DERIVATIVES

The various derivatives of the lemma ENVIRONMENT provided almost half of the data for the present study. The most abundant was the root form 'environment' itself with 399 examples in the *times* sub-corpus and 101 in the

sunnow. Derivative ‘environmental’ gave 187 examples in the *times* and 36 in the *sunnow*, whereas the rest of the derivatives (other words starting with the character string ‘environ’) gave 86 examples in the *times* and only 14 in the *sunnow*. Because of the high number of total instances, the root word and the most common derivative will be discussed in their own subchapters, whereas the rest of the word forms will be studied as a single group.

After the cases in which the node word referred to something else than environmental concerns under study here were removed, the figures in Table 4 were obtained. The percentages refer to the original number of concordance lines for that root word or derivative.

Table 4: The distribution of the derivatives of the lemma ENVIRONMENT

Derivatives	times		sunnow	
	no	% of orig	no	% of orig
environment	127	31,8 %	41	40,6 %
environmental	144	77,0 %	22	61,1 %
environ*	54	62,8 %	9	64,3 %

The drastic drop in the numbers of the root word ‘environment’ shown in Table 4 is the result of the multitudinous contexts in which the word was used to refer to something other than nature protection, such as ‘business environment’, ‘office environment’, ‘market environment’ and various forms of living environment (town, city, host), as well as ‘desktop environment’ and ‘virtual environment’.

In 128 cases in the *times* and in 32 cases in the *sunnow* the word was a part of a title or the name of some organisation or group, such as ‘Environment Secretary/Minister’, ‘Environment Department’, ‘Environment Act’, ‘Environment Agency’ and ‘Environment correspondent’. Of these, 28 in the *times* and 9 in the *sunnow* sub-corpora were such cases that handled environment protection or related issues, whereas the rest were about housing and similar issues or merely reports of council meetings etc. Particularly common were references to the Environment Secretary John Gummer and the Shadow Environment Secretary Frank Dobson, which totalled 42 references in the *times* alone.

Three cases in the *times* sub-corpus were discarded because the same concordance line was for some reason repeated four times. Reasoning that the possibility that the same instance (a movie review) might have been published so many times is rather improbable, the three extra instances were picked apart from the data.

The slight drop in the numbers of the word form 'environmental' can be explained by the situations expressed in the concordance lines in which the topic is the 'environmental' issue of badger removals from gardens, or about excessive noise levels at gathering halls or parties at night and other town and city-related environmental issues that have little to do with the protection of the nature, for example rat-infestations. In 25 cases in the *times* and in 8 cases in the *sunnow*, the word was a part of a title or the name of a group, report or a company, such as 'Integrated Environmental Solutions', 'The Valuation of Environmental Externalities' and 'Department of Environmental and Biological Studies' as well as 'Interpretative Guide and Environmental Interpretation Co-Ordinator' and 'Environmental Health Officer'. Only 6 cases of these in the *times* and 3 in the *sunnow* were in contexts where environmentalism had its clear place.

The last group of derivatives (words starting with 'environ*') will be discussed later in subsection 5.2.1.3 since it stood apart from the rest because one of the major word forms in this group were the adverb 'environmentally', which deserves a separate handling, and the noun 'environmentalist', which refers to a type of people, and is thus likely to be found in more attitudinally weighed contexts than the rest of the word forms (see 'local meaning' in subsection 2.2.2 above).

It is clear from Table 4 above that the base form of the word 'environment' is the least connected to environmentalism and nature protection since only 33,6 % of the concordance lines in both corpora with this form of the node word are related to the issue of environmentalism.

Because of the large number of concordance lines involved in the case of this focal word, and the fact that the root word and some of its derivatives are very different in their meaning potential (see section 2.4), they are studied separately in the following three subsections.

5.2.1.1 ENVIRONMENT

The second meaning given in the fifth edition of Oxford Advanced Learner's Dictionary for the entry 'environment' is "[sing] the natural conditions, eg land, air and water, in which people, animals and plants live" (1995: 387). The fact that this is only the second meaning conforms with the finding that only a bit over 30 % of the node word findings in the *times* sub-corpus and a little over 40 % in the *sunnow* sub-corpus profess such a meaning (see Table 4).

Some of the most statistically meaningful collocates to the word 'environment', rated by T-score, in the *times* and *sunnow* sub-corpora are listed in table 5. The T-score is given in the third column and the second column gives the absolute number of the collocates found in the near context of the node word.

In the *times* sub-corpus there are 31 collocates that reach higher than 2.0 T-score, which indicates that the node word is used in a wide range of immediate contexts. The low positions in this sub-corpus of such words as 'threat', 'friendly' and 'damage' (15th, 16th, 19th), compared to the higher placing of 'secretary', 'correspondent', 'minister' and some names show that political organisations and high-placed people are in a more prominent role in this newspaper than the environmental issues.

Table 5: The most common collocates in *times* and *sunnow* sub-corpora, rated by T-score.

times			sunnow		
collocate	nr	T-score	collocate	nr	T-score
the	367	9.292716	the	70	4.025001
secretary	32	5.514544	department	8	2.817784
department	31	5.479416	for	20	2.683625
gummer	19	4.353040	minister	7	2.589281
john	19	3.920619	and	30	2.396403
state	14	3.479764	consumer	5	2.232346
nick	11	3.260379	spokeswoman	5	2.226948
our	15	3.243676	protection	5	2.226700
nuttall	10	3.153324	health	5	2.184823
a	107	3.074457	in	23	2.076861
correspondent	10	3.037625	roseanna	4	1.999306

The relatively high positions in the *sunnow* sub-corpus of such words as ‘protection’ and ‘health’ indicate that some concern for the state of the environment exists in the tabloid. Although not a single name reaches over 2.0 T-score, there are such words as ‘department’, ‘minister’ and ‘spokeswoman’ that reveal that political organisations and high-placed people are in a relatively important role in the reporting of this newspaper as well. In the *sunnow* there are only 10 words that get higher than a 2.0 T-score, which denotes a less focussed range of context variety than is present in the *times* sub-corpus.

In the *times* sub-corpus as many as 127 concordance lines remained for closer study after those that had nothing to do with environmental causes were removed. In the *sunnow* this number was 41. However, many of these node words appeared as a part of a name or a title and they are dealt separately after the following allocation. In Table 6, the examples in which the node word is not a part of a name of an organisation or the title of some official are allocated into the groupings that were introduced in the beginning of section 5.2. In the following, the groupings will be gone through one by one and some concordance examples are taken under closer study.

Table 6: The concordance examples of the node word ‘environment’ allocated into the context groupings.

Environment	threat&damage	econ&business	aware&argument&concern	plans&project	politics	list of concerns	cars, golf	law cases	group connect	consumers	romantization	various	total
times		17	14	6	12		5	13	7		6	19	99
sunnow	5		1		7	5	5			3		6	32

threat&damage

Incidentally, there were no examples of reports of either damage or a threat of one to the environment in the *times* sub-corpus with this node word - they were all concentrated on the other major derivative of this node word. However, in

the *sunnow* sub-corpus there were 5 cases in which an environmental hazard or a 'shock' was reported, as in example 1, in which the sensationalising news writing style of the *Sun* is clearly visible in the capitalisation of 'every day' and the choice of the word 'shocker' in the title.

Example 1 ...who lived in the flats. <xr> 8047 </xr> <hl> Water shocker </hl>
<dt> 24 May 1998 </dt> **ENVIRONMENT** chiefs protecting Ulster's
waterways were responsible for polluting them almost EVERY
DAY...

econ&business

In numerous examples in the *times* sub-corpus the node word appeared in the context of economics or business, discussing the effects of environmental thinking and environment protection to business. In four cases, concern was drawn to the dishonest environment claims of certain manufacturers, and three cases discussed the environmental effects of the oil industry in developing countries. One of these cases (example 2) showed how wide-spread the consequences of the oil industry are. All of the 17 cases were written in a report-like style and lack the kind of sensationalising as was apparent in the *sunnow* sub-corpus.

Example 2 ...or have fled. This project will check the burning of gas at the oil
fields, which damages the **environment** far more than Shell's
erstwhile occupation of 0.7 of the land area of Ogoniland, which it...

aware&argument&concern

In as many as 14 cases in the *times* sub-corpus the emphasis was on argumentation for the environment and raising the awareness of this issue as in the following example (3), in which the state of the modern world is considered. In the *sunnow* sub-corpus there was only one case in which concern over the environment was voiced.

Example 3 ...pollutants which continue to be used despite concerns about damage
to humans, animals and the **environment**. <p> Industry makes profits
from chemicals and society derives benefits from their use, but...

plan&project

In the *times* sub-corpus there were 6 cases in which the context indicated that the report is about some plan or project that is meant to preserve or save the environment. Like example 4, all the cases were from rather objective reports. The *sunnow* sub-corpus contained no examples that would fall into this group.

Example 4 <p> The Dales project is one of the most ambitious of its type. As part of a pound; 12million **environment** plan, for which partial funding is being sought from the Millennium Commission, the National

politics

Politics were a popular topic in both of the sub-corpora and the contexts of the node word were rather similar to one another. In 12 cases in the *times* and in 7 cases in the *sunnow* the question was about demands for more guarantees to protect the environment, or about the change in the government's position towards the environmental concerns, or simply of the hot issues in the politics these days (as in example 5 below from the *times* sub-corpus), including topics of political speeches. In the *sunnow*, there were three cases that voiced concerns of passing a safe environment to future generations.

Example 5 ...roads lobby, is seen as increasingly out of touch with changing government thinking on the **environment**. Advisers to Michael Heseltine also regard the department as a prime candidate for the axe...

list of concerns

In 5 cases in the *sunnow*, the node word was mentioned simply as one concern among others, such as education and consumer rights as in example 6 below. The fact that the *times* sub-corpus did not include examples of the node word falling into this grouping is not necessarily a sign of any major inclination not to use mere listings of concerns, since the derivative 'environmental' had several such cases.

Example 6 ...aspects of Irish life and Irish people in recent years. Things like equal pay legislation, **environment** protection, consumer protection, health and safety and social education policies are all...

cars, golf

Both sub-corpora contained examples in which the topic handled hobbies, such as cars and golf. In the five cases in the *times*, the context handled the environmental effects of golf courses, as in example 7, and in the five cases in the *sunnow*, the topics were privately owned cars and their environmental impacts, claiming that they are actually almost harmless to the environment.

Example 7 ...one's interest to apply chemicals unthinkingly. In the long term, not only will you damage the **environment** but you will destroy your course <p> He added: 'Ecological considerations aside, it doesn't...

law cases

In 13 cases in the *times* sub-corpus the node word appeared in the context of law cases; apparently in a lengthy discussion of the rights of certain salvors to salvage a vessel that was deemed a threat to the environment before this threat was actually realised (example 8). These cases demonstrated six instances of the phrase 'threat to the environment' (out of the seven indicated in the above collocate list) and three cases of 'damage to the environment'. There were no cases in the *sunnow* sub-corpus for this grouping.

Example 8 ...has carried out salvage operations in respect of a vessel which threatened damage to the **environment** and has failed to earn a reward under article 13 rewards for salvage at least equivalent to...

others

There were also several other kinds of situations in which the node word appeared in the two corpora, some of which were presented in table 6 above. In the *times* sub-corpus, there were 6 cases in which the context reveals some level of romanticising of the environment. This is best shown with a couple of examples (9 and 10). This tendency towards romantic representation of the

environment shows that *The Times's* attitude towards nature includes a high tendency towards a positive attitude.

Example 9 ...understand is that 90 [%] of the pleasure comes from the simple fact of sharing a beautiful, wild **environment** with beautiful, wild creatures. Whether or not you can put a name to them makes no...

Example 10 ...gardening books will point you in the right direction. <p> Once you wade into this watery **environment**, you will become fascinated, no matter what age you are, by an alien and wonderful world...

Furthermore, in 7 cases environmental concern was connected with certain specially defined groups, such as women (examples 11 and 12) and the Tory party (example 12). In one case it was connected with the young people.

Example 11 ...especially their tolerance non-violence and concern for the welfare of animals and the **environment**. In one respect, however, it will seem less attractive to some: women are, for one of its...

Example 12 ...that the old party politics could not accommodate: left-wing activists fight to preserve the **environment** of the Tory shires; Tory women try to block lorries carrying livestock. There is a sea...

The rest of the cases in the *times* sub-corpus, 19 in all, comprised several varying contexts in which the word 'environment' appeared, such as movie reviews. In one case the context of the node word was unclear and more context would have been needed to make it clear what the topic was.

The *sunnow* sub-corpus offered fewer cases that did not fall into the major groups above. There were 3 cases that apparently originated from the same single article, about a TV-show on environmental issues, concentrating on the environment-loving characteristics of the show's author. In 3 more cases a personal environmental deed (good act) or an advice on how to help the environment was reported, as in example 13 in which an exemplary employer is praised also on his environmental concern:

Example 13 ...this year as a good example to his workers in recent pay talks, is now doing his bit for the **environment**. His new company car is an eco-friendly dual-fuel petrol/liquid gas model Omega. PEUGEOT...

The rest of the cases in the *sunnow* sub-corpus, 3 in all, appeared in various contexts, from a report on an environment summit where a bird pecked someone's hand to reports on how the lottery money is being divided between various good causes.

Furthermore, as a point of interest in the *sunnow* sub-corpus, it is notable that in 7 cases the node word came up in relation to privately owned cars or the price of gas. This indicates one of the main concerns of the paper's readership.

Title/Name

The 28 cases in the *times* sub-corpus in which the node word 'environment' was a part of a title or of a name of an organisation and that had a perceptible connection to environmentalism were all positive towards the ideology. They include reports of the Commons Environment Select Committee rejecting any delay in the original deadline for solvent emission cut-downs; the joint celebration of John Gummer, the Environment Secretary, and Lord Melchett, the executive director of Greenpeace UK, over the vindication of Greenpeace; a proposal of the Department of Environment to protect and boost the population of Britain's rarest species. The noticeable fact that someone as well-placed as Lord Melchett is the executive director of Greenpeace UK (at the time the article was written) says a great deal for the present concern for the environment.

In 9 cases in the *sunnow* sub-corpus, in which the node word was a part of a name or a title, and the context of which clearly indicated environmental concerns, the overall attitude was also pro-environmental. In four cases concern for the nature was voiced in reports of sewage leaks and pollution and in a report of the lack of proper scrutiny at a certain nuclear plant. In two cases environmental ministers reported their views and in two cases cars were again discussed. One of the latter was a rather hostile towards the government, as is apparent in example 14:

Example 14 ...yourself for more anti-car propaganda over the next few days during the Department of the **Environment's** Don't Choke Britain week. No doubt the Government will again blame the car for ALL air...

Despite the few anti-government remarks, connected to cars, the *sunnow* sub-corpus professed an equally high concern for the environment as the *times*, combining the political bodies' advice and opinions with more private concerns and situations.

All in all, this root form of the focal word was widely used in contexts other than nature and its protection and it thus does not seem to have connotations the way some more specialised words or phrases may have in the way they are usually interpreted by the readership.

5.2.1.2 ENVIRONMENTAL

The first meaning that the Oxford Advanced Learner's Dictionary gives for the entry 'environmental' is "of or relating to the natural environment" (1995: 387) and gives a couple of examples referring to pollution and health of the environment. Again, this main sense of the derivative is backed up by the finding that 77 % of the cases in the *times* and 61,1 % of the cases in the *sunnow* sub-corpus were used in this sense (see Table 4 above).

The most statistically meaningful collocates to the word 'environmental' in the *times* and *sunnow* sub-corpora are listed in Table 7 below. The T-score is again given in the third column and the second column gives the absolute number of the collocates found in the near context of the node word.

In the *times* sub-corpus, the high position of such words as 'health', 'impact', 'concerns', 'protection', 'damage', 'groups', 'services', 'issues', 'standards', 'problems' that all reach T-scores of over 2.0 indicate that this derivative of the lemma ENVIRONMENT is much more specialised in its use than the root word itself, and it is used mainly in contexts where nature protection is at issue. This finding is backed up by the fact that only 12 collocates reached this T-score of over 2.0 and only two of them, functional words 'and' and 'an', were clearly not related to the semantic field of environmentalism.

Table 7: The most common collocates of the word form 'environmental' in *times* and *sunnow* sub-corpora, rated by T-score.

times			sunnow		
<u>collocate</u>	<u>nr</u>	<u>T-score</u>	<u>collocate</u>	<u>nr</u>	<u>T-score</u>
health	16	3.931543	health	12	3.452311
and	60	3.510675	officers	4	1.986724
an	20	3.235583	an	5	1.917948
impact	8	2.789610	inquiry	3	1.722516
concerns	7	2.620735	council	3	1.710126
protection	7	2.608669	group	3	1.687916
damage	7	2.598466	or	3	1.474548
groups	6	2.392058	are	4	1.464123
services	6	2.320216	campaigners	2	1.411451
issues	5	2.173039	lanarkshire	2	1.409039
standards	5	2.162360	protection	2	1.408934

In the *sunnow* sub-corpus only one of the collocates reached a T-score of over 2.0, which is mainly due to the scarcity of examples. Furthermore, the collocate list is similar to the one on the collocates of the word 'environment' in the *sunnow*, and does not indicate such a change in the use of the word as is the case with the *times*. Only the collocate 'health' indicates concern over the nature amongst the top ten collocates and 'protection' is down on the eleventh position. Furthermore, out of the 12 cases of the word 'health', 11 referred to Environmental Health officers etc., often in contexts that were not concerned with nature protection.

In the *times* sub-corpus as many as 144 concordance lines remained for closer study after the cases that had nothing to do with environmental causes were removed. In *sunnow* this number was 22. It is notable that both of the sub-corpora evidenced that the word form 'environmental' is more widely used in contexts that deal with green causes than the word form 'environment'. Additionally, unlike with the node word 'environment', only a few cases of 'environmental' appeared as a part of a name or a title. They are dealt separately after the following allocation. In Table 8 below, the examples in which the node word is not a part of a name of an organisation or the title of some official are allocated into the groupings that were introduced in the beginning of section 5.2. In the following, the groupings are gone through one by one and some concordance examples are taken under closer study.

Table 8: The concordance examples of the node word, 'environmental', allocated into the context groupings.

Environmental	Threat & damage	Econ&business	aware&argument&concern	plan&project	politics	science	list of concerns	Cats, Golf	env. groups&agitators	law cases	assessments&studies	group connect	various	total
times	22	16	10	9	8	3	12	3	15	1	13	6	20	138
sunnow	1							2	7	2			7	19

threat&damage

The *times* sub-corpus had 22 cases, in which the context of the node word dealt with the threats to the environment and environmental damage, including reports of oil-spills and other hazardous oil operations as well as the many ills that the industrialisation has brought. One major threat was a sunken ships outside Kuwait, reported in example 15. The one case in the *sunnow* was also a report of an environmentally hazardous spill.

Example 15 ...Reuter <p> <h> Sunken ships put Gulf at risk;World Summary </h>
 <p> Kuwait City: An **environmental** catastrophe could hit
the coastlines of the Gulf states if more than 200 vessels, including...

econ&business

In 16 cases the context in *times* sub-corpus was about the economy and the businesses that struggle with the conflict between making profit and economical concerns and regulations. Five of these 16 cases concerned Shell, the big oil company, and their problems with the destruction of the environment in Nigeria and their claims of innocence. Others included a report of a new Pep ranking which offers a new ranking system of ethical and environmental products as well as several cases in which environmental issues and business were discussed in general terms, as in example 16.

Example 16 of smaller businesses in Scotland, and is concerned with applying logistics management to **environmental** problems. <p> The latest initiative, a chair in operations and procurement strategy at

aware&argument&concern

There were 10 cases in the *times* sub-corpus, in which the context indicated clear concern about the environment, either expressed by the paper itself or reported from others. Example 17 is a representative case of the former type.

Example 17 ...for the longer term <p> But the future is now being put into jeopardy by the past. **Environmental** standards of the oil industry and the Nigerian government 40 years ago were different from...

plan&project

In the *times* sub-corpus there were 9 cases which discussed various environmental projects and plans, as well as the new environmental industry which manufactures equipment to battle against pollution. These cases bear similarity to the cases of 'environment' that fell into the same grouping.

politics

In the *times* sub-corpus there were 8 cases in which the node words appeared in the context of politics and in which the environmental concerns were used as the same kind of leverage as employment, health care and other such social issues. For example, the concern for the costs of environment protection came up in political decisions (examples 18, 19).

Example 18 ...people with more of their money by reducing taxes. <p> The Republicans want to eliminate **environmental** regulations that are not cost-effective; the president sees environmental protection as too...

Example 19 ...want to eliminate environmental regulations that are not cost-effective; the president sees **environmental** protection as too important to subject to cost tests. The Republicans want to trim...

list of concerns

In as many as 12 cases in the *times* sub-corpus the environmental programmes, management and studies are mentioned simply in a list of other similar concerns, as in the example 20.

Example 20 ...education. <p> The programme establishes five curricular areas of language, mathematics (sic) **environmental** studies, expressive arts, and religious and moral education and defines attainment targets...

env.groups&agitators

In 15 cases the contexts in the *times* sub-corpus handled various environmental groups, organisations and an agitator. Voices were again raised against Shell. Example 21 is the only one that can be analysed as negative towards environmentalism, because of the word ‘agitator’, whereas the other examples gave the activists more neutral names, such as ‘campaigners’ and ‘advocates’. This deviation from the form may be because of the more informal characteristic of movie reviews compared to other sections of the newspaper.

Example 21 ...Interview;Ted Danson;Film </h> Dalya Alberge <p> Dalya Alberge talks to Ted Danson; **environmental** agitator, paparazzi hater and sunny star of Loch Ness. <p> The massive, unlit cigar that...

In the *sunnow* there were 7 cases, in which the node word appeared in a context where it identified group membership, such as ‘environmental activist/group’. In one of these, this is just an identification, but in the others the topic is the reaction and activities of such groups, as in example 22.

Example 22 ...not to be reached for comment. <hl> Groups blast nuke ‘arrival’ </hl> <dt> 24 April 1998 </dt> **ENVIRONMENTAL** groups reacted with fury last night after claims that controversial nuclear waste had...

others

In the *times* sub-corpus there were as many as 13 cases that dealt with environmental studies. Some of these studies were required by the government and others were requests for independent studies of, for example, Shell’s

environmental effects. In 6 cases the context linked specific groups of people with the environmental protection, such as the Labour, certain female lawyer, the female founder of Body Shop and some young 'hot-rod surfing kings'. In the rest of the concordance lines the node word was used in miscellaneous contexts, such as environmental campaign reports (2) etc, many of which are shown in Table 8 above.

In the *sunnow* sub-corpus there were also several cases that were not mentioned in the above groupings, such as 2 cases in which the context was yet again the private car owners and their difficulties and others in various kinds of contexts, such as one law report, one report of a new legislation according to which the unemployed had to either go back to school or join an environmental or a voluntary group.

Title/Name

In the *times* sub-corpus there were 6 cases in which the word 'environmental' was a part of a title or of a name of an organisation and that had a perceptible connection to environmentalism. These were all positive towards the ideology of environmentalism. They included the campaign of the Environmental Industries Commission, the Labour's attempts to integrate pollution reduction scheme and two instances of allusions to the 1990 Environmental Protection Act.

In the *sunnow* sub-corpus, there were 3 cases in which the word 'environmental' was a part of a title or of a name of an organisation and had a perceptible connection to environmentalism. Two of them professed some hostility in their contexts. One of the cases is a simple report of a new safety audit, but the two others are different. In example 23 below, the slight hostility goes towards the people patting each other's backs for job well done while the audience is expected to sit silently by and not voice their opinions or complaints.

Example 23 ...which would have proved difficult for their clients. We had to sit in silence as doctors, **environmental** and public health officials patted each other on the back for their handling of the...

In example 24, the hostility is less visible, but again it is directed towards a certain group and their requirements, not, apparently, the environmentalism itself.

Example 24 ...to see what could be salvaged. <subh> Cat </subh> Jim, 43, said: ‘I couldn’t believe it. The **environmental** health people told everyone to throw out anything the water had touched. It took me a WEEK...

All in all, this derivative of the lemma ENVIRONMENT was used more in a meaning that dealt with environmentalism than the root form ‘environment’. Furthermore, the *times* sub-corpus contained a lot more examples of this word than the other sub-corpus, indicating a clear difference in the meaning of this word between the newspapers. *The Times* is more inclined to report environmental disasters and oil spills using this word form whereas the *Sun* prefers the form ‘environment’.

5.2.1.3 OTHER DERIVATIVES OF ‘ENVIRONMENT’

The word forms in this subsection are different from the two discussed above simply because they are not a single word, but rather several words that all start with the character string ‘environ’, not including the two word forms described in the previous two subsections. The decision to deal with the rest of the derivatives of the lemma ENVIRONMENT in this single subsection is based on the fact that there were only a few cases of each of them. The applicable root word derivatives that are of interest in the present study are ‘environmentalist’, ‘environmentally’, ‘environmentalism’, and ‘environments’. The last form appears only twice in a context where the topic handles environmentalism and ‘environmentalism’ appears only once, both of these only in the *times* sub-corpus.

The meaning that Oxford Advanced Learner’s Dictionary (1995: 387) gives for the noun ‘environmentalist’ is “a person who is concerned about and wants to improve and protect the environment” and for the adverb ‘environmentally’,

the explanation is given in the form of examples, such as “*environmentally friendly products*” (1995: 387, italics original).

The most statistically meaningful collocates to the word forms starting with the string ‘environ’, other than ‘environment’ and ‘environmental’, in the *times* and *sunnow* sub-corpora are listed in Table 9 below. In the *times* sub-corpus, only two words reached a T-score of over 2.0 and they are ‘friendly’ and ‘are’. According to the collocate profile, ‘friendly’ is the most common collocate immediately following the node words and ‘are’ is most commonly found in the second position after the node words. Several words in the collocate list, such as ‘prison’, ‘modern’ and ‘virtual’ indicate that the node words are commonly associated with non-environmentalist topics.

In the *sunnow* sub-corpus only the word ‘friendly’ reached a T-score of over 2.0 and in all five cases it immediately followed the node word ‘environmentally’. All the other top collocates are functional words and words that have only one appearance. This is caused by the scarce data, which includes only 14 concordance lines. In the *times* sub-corpus as many as 54 but in the *sunnow* only 9 concordance lines remained for closer analysis after the initial study.

The contexts in which the various derivatives of the node word appeared differed from each other to such an extent that only the two most common of them deserve a separate treatment. These are ‘environmentalist’ and ‘environmentally’.

Table 9: The most common collocates of the node word forms starting with ‘environ’ in the two sub-corpora, rated by T-score.

times			sunnow		
collocate	nr	T-score	collocate	nr	T-score
friendly	17	4.115289	friendly	5	2.232757
are	10	2.187046	in	5	1.427735
more	6	1.805605	with	3	1.303648
sensitive	3	1.719853	about	2	1.284171
prison	3	1.693802	they	2	1.069459
modern	3	1.663686	of	4	1.061596
and	23	1.649881	sentimentalists	1	0.999981
as	9	1.621834	assessments	1	0.999942
lobbies	2	1.413032	uprooted	1	0.999865
sustainable	2	1.411850	economically	1	0.999808
an	6	1.411223	pressured	1	0.999712

Environmentalist

In the *times* sub-corpus there were 21 cases (c. 24,4 % of the 'other' derivatives) in which the word form was 'environmentalist' or 'environmentalists'. In all the cases this word form was used in a manner which indicates that 'environmentalists' are a definable group of people, and possibly outside the main population. They are mainly observed as an 'outgroup', a group of people who share a certain characteristic which does not describe the average 'ingroup' member, in this case this is the active concern for the environment. According to van Dijk (see subsection 2.2.2) this kind of a separation of different groups from the main population is one of the most important discourse structures, included in the term **local meaning**, that carry ideological message. The focal word here is also used as a definer, in the manner of a conventional work title. In example 25 both of these qualities are clearly visible and in example 26 the status of environmentalists as an 'outgroup' is demonstrated as their difference in opinion is characterised:

Example 25 ...at large. <p> Many issues exist that seem to reflect such conflicts. Some of them involve **environmentalists** and conservationists, not excluding anglers, as a report in The Times, on the damage that...

Example 26 ... MP and a majority of the Berkshire town's population, but it is bitterly opposed by **environmentalists** who have been digging in for protests. Tony Juniper of Friends of Earth, said: 'This...

Negative attitude in the *times* sub-corpus towards environmentalism is restricted to a single case (example 27), in which the environmentalists' message is called 'propaganda' and its presentation is deemed 'shameless':

Example 27 ...breath, but only for a day or two. The sea swallowed the oil as easily as many swallow the **environmentalists'** propaganda, trotted out shamelessly each time a tanker goes aground. There is nothing...

An attitude of hostility towards environmentalists as a group was evident also in the *sunnow* sub-corpus. In 4 cases the node word was 'environmentalists' in plural. In one of these, the group of people referred to were reported as having

uprooted “genetically-altered oil-seed *rape* during a two hour *raid*...” (italics added). The use of the word ‘rape’ indicates that the genetically altered products are seen as a serious threat and as such a shared concern, but the latter word ‘raid’ is likely to characterise the environmentalists as violent and rough people. The three other examples make this reference more clear. In example 28 environmentalists are referred to as single issue fascists and in example 29 they are seen as a separate group who have to be fought against in order to get things done. In the last case they were described simply as “angry”, which adds to the characteristic of violence.

Example 28 ...pass laws to appease single issue fascists, from animal sentimentalists to paramilitary **environmentalists**. When governments talk about family values, their idea of family extends to a pair of...

Example 29 ...will be announced at the end of next year, but at the moment we’re having a battle with **environmentalists** who don’t want reductions in bills. They want to see more expenditure on the...

In conclusion, the word form ‘environmentalist’ is clearly more weighed with a negative attitude than the other derivatives of this lemma, especially so in the *sunnow* sub-corpus. These tendencies will be further explored in section 5.3 below.

Environmentally

In the *times* sub-corpus there are 30 cases (c. 34,9 %) in which the derivative is the adverb form ‘environmentally’. In half of these cases (16), the node word is immediately followed by ‘friendly’ and is used to describe the quality of a product or its production in a positive manner. In five of these cases, the question is about cars and public transport. In 4 cases the node word is used to describe the mindset of some person or persons, as in ‘environmentally minded/conscious/aware’ and in the rest of the cases (10), the word is used in various contexts such as ‘environmentally sensitive/effective/important’.

In the *sunnow* sub-corpus there were 5 cases in which the node word was a part of a construction similar to the one evidenced in the *times*, which is “environmentally friendly home/cars/store” or some other way of describing

the quality of some product, place or thing. Example 30 shows some concern over the nature, but this is evidently expressed in a report that is merely quoted in this newspaper.

Example 30 ...chiefs. For example, the report says of disposable nappies: 'Easier to use they may be, **environmentally** friendly they are not. They are disposed of in plastic and are likely to remain around for...

Other Word Forms

The other derivatives alluded to in the beginning of the present subsection appeared only on a couple of occasions in the *times* sub-corpus. The three cases in which the node words were not 'environmentally' or 'environmentalist(s)', they were 'environmentalism' and 'environments'. The latter is used in a description of various polluted areas and the former is shown in example 31, in which the word is connected in some manner with negative qualities as far as it comes to certain nominees:

Example 31 ...that (it) will not include a nominee who has anything to do with Aids, multiculturalism, **environmentalism**, sexism or feminism <p> On that basis, Brigitte Bardot and Mother Teresa, both nominees,...

Because there were only a couple of these examples in the sub-corpora, and only in one of them to begin with, not much weight can be put onto their meaning. What can be said, however, is that it is evident from the lack of use of these word forms, especially 'environmentalism' that ideologies such as this one do not get much attention in these newspapers.

5.2.2 'POLLUTION' AND ITS DERIVATIVES

The focal word 'pollution' provided nearly thirty percent of the data in the present study after the concordance lines that had nothing to do with environmental issues had been taken away. The most numerous word form was the root word 'pollution', which appeared as many as 150 times in the *times* sub-corpus and 43 times in the *sunnow* sub-corpus. Because only a few cases

of the various derivatives were present in the *sunnow* sub-corpus, they were bundled together for the purposes of the present study. Of these there were 51 in the *times* sub-corpus and only 7 cases in the *sunnow*. Unlike with the node word lemma ENVIRONMENT, there were not nearly as many cases unrelated to the issue of the present study with the node word lemma POLLUTION, as the figures in table 10 below show. These numbers show the amount of relevant concordance lines in the sub-corpora and the percentages refer to the original numbers of concordance lines given above.

Table 10: the distribution of the word forms of the lemma POLLUTION between word forms

Derivatives	times		sunnow	
	no	% of orig	no	% of orig
pollution	141	94,0 %	42	97,7 %
pollut*	48	94,1 %	6	85,7 %

The nine cases of ‘pollution’ in the *times* sub-corpus that were unrelated to the present study were in contexts such as ‘noise pollution’ or mines etc. In the *sunnow*, the single rejected case referred to ‘mind pollution’. In case of the other word forms, the three cases rejected discarded from the *times* sub-corpus dealt with such issues as ‘polluted society’, ‘polluted euro’ etc. and the single removed case in the *sunnow* sub-corpus was quite similar. Furthermore, a fact that is not represented in the above table, in 10 cases in the *times* sub-corpus, the word ‘pollution’ appeared as a part of a name of a company or a law.

Because of the number of concordance lines involved in the case of this focal word, and the fact that the word forms are very different in their meaning potential, they are studied separately in the following three subsections.

5.2.2.1 POLLUTION

The Oxford Advanced Learner’s Dictionary considers ‘pollute’ the basic form of this lemma, but in the present sub-corpora ‘pollution’ was much more frequent. The explanation for the noun ‘pollution’ is given as “the process of

polluting sth or the state of being polluted . . . [or] the substances that pollute” (1995: 894).

Statistically the most important collocates of the node word “pollution”, rated by T-score, are listed in Table 10 below. Out of the sixteen collocates that reach a T-score of 2.0 or more in the *times* sub-corpus, two are allocation markers used in corpora and four are functional words. Out of the ten collocates that remain, nine are related to the protection of the natural environment (all but ‘noise’). The most common collocate immediately preceding the node word is ‘air’ which indicates that the word pollution is connected often with such pollutants that are airborne. Additionally, according to the collocate profile, ‘traffic’ is the fifth most common in this position and appears also in other positions around the node word and the second most common collocate all together. This indicates, that contrary to the large amount of reports of oil spills, the present node word is mostly connected with quite different kind of pollution.

In the *sunnow* sub-corpus, only two of the collocates reach a t-score above 2.0 and both of them are functional words. The collocate profile shows that the most common collocate immediately preceding the node word is ‘air’ and the second most common in this position is ‘nuclear’. Unlike in the *times* sub-corpus, the words ‘traffic’ and ‘diesel’ make no appearance as top collocates. This may indicate a difference in the meaning of the node word that is caused by a difference in the attitude taken by these newspapers towards various kinds of pollutants. The latter explanation would work well with the fact that many

Table 10: The most common collocates of the word form ‘pollution’ in *times* and *sunnow* sub-corpora, rated by T-score.

times			sunnow		
collocate	nr	T-score	collocate	nr	T-score
and	54	3.767408	which	8	2.669291
traffic	14	3.722516	is	10	2.259985
air	14	3.674162	air	4	1.973600
of	62	3.648219	problem	4	1.961610
caused	11	3.282978	cars	3	1.715854
</h>	13	2.879946	free	3	1.635585
noise	8	2.817975	has	5	1.631027
by	17	2.483625	litter	2	1.413044
diesel	6	2.435890	reduce	2	1.410246
from	15	2.420433	spread	2	1.408074
levels	6	2.403167	nuclear	2	1.402687

examples in the *sunnow* sub-corpus appeared in contexts in which the pollution caused by cars is downplayed (see subsection 5.2.1.1 above and subsection 5.3.2 below).

The *times* sub-corpus gave 141 concordance lines for study after those that were not connected with environmentalism were removed. In the *sunnow* sub-corpus there were 42 cases. However, ten of the cases in the *times* sub-corpus were such in which the word was used as a part of a name or a title and these are dealt separately further below. In Table 11, the examples in which the node word is not a part of a name of an organisation or the title of some official are allocated into the groupings that were introduced in the beginning of section 5.2.

Table 11: The applicable concordance examples of the node word, 'pollution', allocated into the context groupings.

pollution	<i>threat&damage</i>	<i>econ&business</i>	<i>aware&argument&concern</i>	<i>plan&project</i>	<i>Politics</i>	<i>science</i>	<i>control measures</i>	<i>list of concerns</i>	<i>Cars, Golf</i>	<i>env. groups&agitators</i>	<i>law cases</i>	<i>consumers</i>	<i>various</i>	<i>total</i>
times	19	17	10	9	4	7	21	20		3	4	4	13	131
sunnow	5		4		2		3		9	4			15	42

threat&damage

In the *times* sub-corpus there were 19 cases in which the node word appeared in a context which reported a hazard or an accident that polluted the environment, including heavy metal and poisonous substance leaks, leaking oil tankers, the dangers of nuclear energy and a report on the effect of diesel pollution, as well as cases in which the newspaper expressed worry over the increasing pollution and its hazards, as in example 32.

Example 32 ...zones. Several times last summer, officials advised Parisians to stay indoors because of **pollution** alerts. <p> <h> Tourist tax;Travel;Directions </h> <p> Renting a car in the United States is...

In the *sunnow* sub-corpus there were only 5 cases in which the node word appeared in connection with an environmental damage report, two of which concentrated on nuclear pollution and stressed the spread of the said pollution. In one case the topic was industrial pollution of an unknown origin and the possible prosecution of the culprit. In two cases the topic was water pollution and its serious threat to the waters and animals. All of these cases were neutral or pro-environmental in their attitude.

econ&business

In 17 cases the node word appeared in the *times* sub-corpus in a context of the economy and business and their way of tackling with the environmental concerns. This included reports on company investments in anti-pollution measures, deliberate ignorance of such etc. Included in this group are also the research and design reports on car engines to make them produce less pollution as well as reports on the manufacturer's concern that the pollution of electric cars is produced at the power stations. The examples in the *times* sub-corpus indicated a slight dislike towards a certain company (in example 33) by contrasting their concerns with the effects of their running, and how they effectively ignore people who are dying while opposing the pollution. On the other hand, in another example (34) the effort of the motor industry is praised. Again there were no examples fitting this grouping in the *sunnow* sub-corpus.

Example 33 ...extensive oil spills on the ground, in water and in the soil. People have died opposing the **pollution**. Meanwhile, Shell is focussing on other issues, such as population pressure, deforestation or...

Example 34 ...cars carry the things they need to have with them in the course of the day. <p> As for **pollution**, no industry has done more than the motor industry to solve its problems in this regard. Most...

aware&argument&concern

Both sub-corpora offered examples for this grouping, although the examples in the *times* sub-corpus were more objectively written. In 10 cases in the *times* the context turned out to be reports about traffic pollution concerns in general, including research reports on the sources of traffic reports (cars in lousy

condition), reports on the price of pollution, the effect of supermarkets on traffic pollution.

In the *sunnow*, 4 cases of the node word appeared in contexts of worry of or concern over pollution. Three of these were neutral in their approach, but in one case (example 35) the negatively weighed word ‘claim’ was used in connection with a reported pollution risk. However, the paper accepted and even stressed the authority of the source of the warning, by naming him ‘an expert on algae’.

Example 35 ...Warning on lakes peril </hl> <dt> 21 May 1998 </dt> IRELAND’S lakes are in danger from farm **pollution**, it was claimed yesterday. Dr Andrew Peterson, an expert on algae, said phosphates used by...

plan&project

In 9 cases in the *times* sub-corpus the node word appeared in a context which reported various projects and plans which are supposed to cut down pollution or repair the damage done by it. In example 36 the damage towards marine environments are discussed in a typical objective tone.

Example 36 ...The centres, which feature marine life in natural settings, will deal with problems caused by **pollution** and abandoned fishing nets as well as uncaring parents. <p><h> Captain Fearful senses...

control measures

In 21 cases in the *times* sub-corpus the context alluded to various control measures taken against certain types of pollution or dangers of such. These included reports about closing down streets on pollution blackspots and encouraging public transport (7 cases), closing down power plants and monitoring pollution levels. Typically, these examples professed neutral reporting writing style as in example 37. In the *sunnow* there were 3 cases in which the context of the node word handled various pollution control measures.

Example 37 ...local councils powers to close streets and restrict the speed, size and type of vehicles in **pollution** blackspots. The Government has signalled that it will look favourably on plans that restrict...

list of concerns

There were as many as 20 cases in the *times* sub-corpus in which the node word 'pollution' appeared in contexts in which it was mentioned simply as one of many concerns or characteristics of a given thing or situation, as in example 38. It appeared also in context where the characteristics of certain pollution blackspots are described, such as Mexico or Cairo. The *sunnow* sub-corpus contained no such examples.

Example 38 ...disease, with as much perceived right to a cure as life-threatening cancer. <p> As stress, **pollution** and plummeting sperm counts minimise the chances of a natural conception, cheque books are...

cars, golf

The *sunnow* sub-corpus professed 9 cases in which the context of the node word discussed cars: old cars and their pollution in three cases, new hi-tech cars and their 'zero-pollution' (example 39), and three cases in which the article attacked against the claims that cars produce pollution, claiming that if taken care of properly, cars produce next to no pollution at all. All together, these nine cases prove that privately owned cars are an important topic for the tabloid since this is the biggest grouping of the node word in this sub-corpus.

Example 39... </dt> THIS is the ultra-green supercar that will revolutionise motoring next century. It has a **pollution**-free 'bi-fuel' engine running on petrol, gas, electricity or even AIR. It is crammed with hi-...

env. groups&agitators

Both sub-corpora referred to environmental groups. In the *times* sub-corpus, in 3 cases the context indicated that the examples were reports about environmentalists' claims or warnings. In example 40, the difference between the group 'environmentalists' and 'pollution' becomes clear: whereas the first one is a social subject whose opinion may be questioned with verbs such as

“claim”, the second one refers to a social object which is inanimate and as such is harder to put to question.

Example 40 ...on the city centre routes which, environmentalists claim, are one of the main sources of urban **pollution**. <p> The bus industry was deregulated in 1986, allowing buses to be run anywhere with the...

In 4 cases in the *sunnow* sub-corpus the node word appeared in context of environmental campaigners and their ‘claims’ about environmental pollution risks (two cases) or their dismay over bad decisions (one case). Other than for the use of the word ‘claim’ these examples were objective in their tone.

others

In addition to the groupings handled separately above, there were several other contexts in which the node word appeared less frequently. In the *times* sub-corpus there were seven cases in which the reports were about scientific findings on the causes of pollution and its effects. In four more cases the context was from reports of law cases connected to pollution and in four others on how pollution affects the consumer. In four additional cases there were certain political situations in which pollution is brought up.

The rest of the cases, in which the word was not a part of a name or a title, (13 in all) were various reports of pollution alerts and budget analyses in which the part of the budget committed to anti-pollution matters were discussed. Four of the cases appeared in the titles of letters that came from the reading public. These were the same letters as the ones that will be mentioned in the case of the node word ‘emission’ below, because the titles of these letters are “Part played by diesel emissions in traffic pollution”. In one case the topic was Michael Jackson’s pollution fear and the applicable mask he wears.

In the *sunnow* sub-corpus there were 5 cases in which the node word appeared in connection with letters from the tabloid’s readership, in which they either expressed worry over the spread of pollution, or in one case spoke in defence of the smokers and their small part in the overall air pollution. In two cases the node word appeared in political discussion, reporting some government ruling or meeting discussing the pollution.

In the rest of the cases in the *sunnow* sub-corpus, 10 in all, the node word ‘pollution’ appeared in a variety of contexts, from a discussion on the connection between pollution and asthma to various commentaries, some of which can be seen to be negative in their attitude and will be handled in more detail in subsection 5.3.2 below.

Name/Title

In the 10 examples, all of which appeared in the *times* sub-corpus, in which the node word appeared as a part of a name or a title, it was most often connected with pollution fighting, as in ‘The Department of Transport’s Marine Pollution Control Unit’ (4 cases), ‘Pollution Control Department’ (1 case). In one case the title is ‘International Oil Pollution Compensation Fund IOPC’ which, even if it is not the name of a fund aimed against pollution, does stress the dangers of pollution in general.

5.2.2.2 DERIVATIVES OF ‘POLLUTION’

This sub-chapter of the analysis handles the less numerous derivatives of the node word. The word forms under study here are mainly: ‘polluting’, ‘pollutant’ and ‘pollute/polluted’ as well as ‘polluter’. Since there were only a few examples of such word forms, especially in the *sunnow* sub-corpus, these will only be handled briefly.

The meaning that Oxford Advanced Learner’s Dictionary (1995: 894) gives for the verb ‘pollute’ is “to make sth dirty or no longer pure, esp by adding harmful or unpleasant substances to it” and for the noun ‘pollutant’, the explanation is given as “a substance that pollutes, eg smoke or waste product from factories”. Naturally, the noun ‘polluter’ was explained in the same source as a person or a group of people that pollutes.

Statistically the most meaningful collocates of the node words in both of the sub-corpora are given in table 12 below. As for the *times* sub-corpus the small amount of data resulted in a collocate table which has many functional words in the top positions. However, words such as ‘emissions’, ‘petrol’, ‘industries,

Table 12: The most common collocates of the various minor word forms of the node word in the *times* and the *sunnow* sub-corpora, rated by T-score.

times			sunnow		
<u>collocate</u>	<u>nr</u>	<u>T-score</u>	<u>collocate</u>	<u>nr</u>	<u>T-score</u>
is	11	2.020052	bathing	2	1.414186
and	16	1.763198	spots	2	1.413534
outside	3	1.684193	include	2	1.410277
not	5	1.494250	most	2	1.387522
also	3	1.458106	were	2	1.318619
flouting	2	1.413763	excreta	1	0.999990
emissions	2	1.411861	waterways	1	0.999962
earning	2	1.409208	swamp	1	0.999933
beaches	2	1.408658	exhaust	1	0.999865
petrol	2	1.404303	coal	1	0.999625
industries	2	1.403202	blackpool	1	0.998491

'vehicles' etc., which have T-scores of over 1.4, indicate that the usage of this node word is centred around the environmental concern. On the other hand, the even smaller amount of data from the *sunnow* sub-corpus makes the collocates less than meaningless, a fact which is evidenced by top collocates such as 'bathing' and 'spots' which appeared together as 'bathing spots'.

The *times* sub-corpus provided 48 examples after those three that had nothing to do with environmentalism were removed. In the *sunnow* sub-corpus there were 7 applicable cases after the removal of only one. These remaining cases are categorised into the context groupings in Table 13 below. Due to the scarcity of examples, the groupings will not be dealt with on one by one basis. Rather, the word forms themselves will be shortly discussed. It is notable that there are no openly hostile or negative cases towards the idea that pollution is a serious threat in either of the sub-corpora.

Table 13: The concordance examples of node words starting with the character string 'pollut*' allocated into the context groupings.

	threat&damage	econ&business	aware&argument&concern	plan&project	politics	science	consumers	various	total
pollut*									
times	10	3	1	9	5	8	1	11	48
sunnow	3							4	7

Polluting

In 10 cases in the *times* sub-corpus the node word was 'polluting'. This form of the node word was mostly used in political contexts (five cases), in two of which the pollution policies of the EU and in the three others two different anti-pollution policies were discussed. In two cases new car engine technologies were explained and in one case severe concern was expressed over pollution. However, the context in the last case was too narrow to reveal whether it was the newspaper's worry or someone else's. In the two last cases the word appeared in discussion over the polluting effect of various sources (cars, industry) and as a characterising term in a long list of others.

One of the mere 2 cases in the *sunnow* sub-corpus appeared in context that discussed the pollution aspect of a new plant in a doubtful tone (in example 41) and the other was the same as in example 1 above (in subsection 5.2.1.1) in which a pollution shock was reported.

Example 41 ...205million last year despite being rapped for water shortages - claims that plant will be less polluting than coal-fired ones. <hl> Pounds 10m needed for drug work; Murray's mint </hl> <bl>

Pollute

In 26 cases in the *times* sub-corpus, the node word was 'polluted', 'pollute(s)' or 'polluter'. In five cases, the context was a report of an environmental disaster or damage (polluted birds, water insects, island). In six cases the topic

handled various anti-pollution plans and projects (example 42 below), as well as new restrictions to smokers. In three cases, the context reported the fight of certain car industries against their image as polluters and in 3 cases, the pollution was handled in scientific reports. In as many as 9 cases, the node word appeared in a variety of contexts, including a description of a vacation resort, war zone, space programs etc.

Example 42 ...<p> The success of privatisation can be seen in the continuing clean-up of our once-polluted rivers, estuaries and beaches. Any keen fisherman will verify this fact and, before long...

In the five examples in the *sunnow* sub-corpus the derivative of the node word was mainly 'polluted' with one case of 'pollute'. Three of the examples appeared in contexts in which environmental damage, hazard or disaster was reported, in one the context was clearly abusive of a certain person, one attacked pedestrians and cyclist for their claims that they do not pollute like cars. This last case (example 43) continued the trend apparent in this sub-corpus (and the tabloid) of downplaying the polluting effect of cars in its groundless attack against cyclists. This kind of use of the node word is also likely to downplay the seriousness of the topic of pollution in general, since it makes it a kind of a laughing matter.

Example 43 ...Not until they respect folk who walk. Aye, they are all that smug because they claim they don't **pollute** the atmosphere with exhaust fumes. They do folks. Are you trying to tell me that cyclists don'...

Pollutant

In 12 cases, and only in the *times* sub-corpus, the node word was 'pollutant(s)'. In three of these cases, the context discussed the pollutants produced by various fuels and fuel combinations. In three more cases, anti-pollutant technologies and projects were discussed (catalysts, car exhaust tests). In two cases, a case of river pollution was reported and in three the effects of pollutants on human respiratory system was handled (one of these appears in a name of a committee). In one case, concern over consumers' ability to avoid

pollutants was discussed (example 44) in a manner that stresses the concern of pollution.

Example 44 ...enables consumers to make informed decisions. But they cannot choose to avoid pesticides and **pollutants** which continue to be used despite concerns about damage to humans, animals and the...

5.2.3 'EMISSION' AND ITS DERIVATIVES

For more than a decade, the emissions of power plants and the traffic have been a major cause of concern in the modern world. Especially the car industry has been put under pressure to build cars that produce less emissions than the earlier ones.

The Oxford Advanced Learner's Dictionary gives the following explanation as the main one for the noun 'emission': "the production or release of sth, eg light, heat, gas, matter, etc", giving examples "*of carbon dioxide emission from vehicles*" and "*emission controls/laws*" (1995: 377, italics original). Thus it seems that this word is in close relationship with the other focal word 'pollution' that was examined above.

The most meaningful collocates of the node word, statistically, are listed in Table 14 below. Of the six collocates that reached a T-score of over 2.0 in the *times* sub-corpus, four are such that define the nature of the emission referred to by the node word. According to the collocate profile, these kinds of words are the most common directly preceding the node word in general. The fact that the collocates are this consistently similar with each other indicates that the node word has little uses other than that referring to pollutants.

In the *sunnow* sub-corpus, only three collocates attained a T-score of 2.0 or more, and two of these appear in the concordance lines together as 'carbon dioxide' and are the most common collocates immediately preceding the node word. As in the *times* sub-corpus, it appears that also in the *sunnow* the most common referent for the node word 'emission'/'emissions' are pollutants, as was suggested by the dictionary entry.

Table 14: The most common collocates of the node word 'emission' in the *times* and the *sunnow* sub-corpora, rated by T-score.

times			sunnow		
collocate	nr	T-score	collocate	nr	T-score
diesel	10	3.158134	by	7	2.433850
particulate	5	2.235702	dioxide	5	2.235963
fuel	5	2.226619	carbon	5	2.235449
traffic	5	2.223470	reduce	2	1.412461
standards	5	2.212813	electric	2	1.411999
by	9	2.113721	tests	2	1.406205
carbon	4	1.998198	caused	2	1.404802
pollution	4	1.993858	less	2	1.397753
played	4	1.949637	on	4	1.396486
letter	4	1.936289	cent	2	1.378562
part	4	1.883592	20	2	1.361548

The focal word 'emission' provided circa 9.3 percent of the data for the present study after those cases that had nothing to do with environmentalism were removed. In the *times* sub-corpus there were 57 cases, after the two that were used in contexts that had nothing to do with nature protection (physics and medical science) were removed. In the *sunnow* sub-corpus this number was 19 cases, in none of which the node word was used in a context which would have indicated that the topic was not connected to environmental concerns. All these remaining concordance lines were allocated into the previously introduced groupings and Table 15 below shows the statistics of this allocation. Following the table, the biggest groupings are gone through one by one.

Table 15: The concordance examples of node word 'emission' allocated into the context groupings.

emission										
	econ&business	aware&argument&concern	politics	science	control measures	cars, golf	env. groups&agitators	law cases	consumers	various
times	6	9	20	8			1	2	11	57
sunnow		5	1		6	2		1	4	19

econ&business

In the *times* sub-corpus, in 6 cases, the node word appeared in contexts in which business environment was present. In four of these cases, the new, less polluting cars and the attempts to produce them were reported, as well as the high amount of money that the companies have to spend on research. One of the cases concentrates on the question on the source of the emissions (example 45).

Example 45 ...that liquefied petroleum gas is the cleanest alternative to diesel. Electric vehicles have no **emissions** at all but the gas companies point out their pollution is created at power stations. <p>...

aware&argumentation&concern

The *sunnow* sub-corpus demonstrated 5 cases in which concern was expressed over exhaust emissions of a certain nuclear plant (three cases) and over carbon dioxide emissions that cause the Greenhouse effect. In one of these cases (example 46), a disconcerting fact about a nuclear plant was mentioned in an off-handed way but at the same time emphasised with the capitalisation of the multiplier.

Example 46 ...if Blair says jump the Scottish Office only asks 'how high?' Thirdly we discovered that nuclear **emissions** from Dounreay had been underestimated by a factor of TEN. But this extraordinary triple...

politics

There were 9 cases in the *times* sub-corpus, in which the node word was used in a political context, which in this case means that the political discussions and decisions on emission and vehicle emission standards were reported. The positive attitude of *The Times* towards these stricter standards is demonstrated in example (47), in which the newspaper uses the positive word 'promise' in reporting the intention of the government for the future. The *sunnow* sub-corpus included only one case fitting this grouping.

Example 47 ...standards. The Government had promised to push for even tougher standards governing vehicle **emission** and diesel fuel across Europe beyond the year 2000. <p> Other sources of particles. Limits on...

science

In the *times* sub-corpus there were as many as 20 cases that presented the node word used in a context which can be called 'scientific'. This includes six instances of descriptions of how a particular engine works in relation to emissions (example 48), reports of scientific studies of carbon, traffic and chemical emissions and their effects in four cases, report on a scientist who turned attention to emissions and their effects on the polar caps (two cases), and discussion of less polluting fuels (three cases), and others in which some catalyst technologies etc. were discussed. These all gave out details in a objective and non-commenting way, suiting the style of a scientific report. The *sunnow* sub-corpus had no examples fitting this group.

Example 48 ...Merrit-cycle engine concept which promises a petrol unit with better fuel economy and lower **emissions** than a diesel. It uses a second small piston in the cylinder, shaped and driven like a valve...

control measures

In 8 cases in the *times* sub-corpus the node word appeared in a context in which vehicle emission tests and other emission control procedures were reported, including roadside emission tests. In 2 of the concordance examples, the inability of the authorities to control the obedience of new, stricter government policies (example 49) is discussed.

Example 49 ...to the increasing dangers of air pollution caused by traffic and the proposed strengthening of **emission** standards. However, the Government is failing to enforce the existing standards, not least by...

others

Once again, in addition to the groupings handled separately above, there were several other contexts in which the node word appeared less frequently. In the *times* sub-corpus there were 2 cases in which the role of the private citizens in reducing emissions was discussed. The rest of the cases discussed various

topics, including one law case and four that were parts of letters from the readership. In two cases *The Times* appeared to make fun of the nobility in their description of a meeting (both appear in example 50), but this fun-making was clearly not linked to the environmental concerns themselves:

Example 50 ...Few knew. Viscount Goschen explained the difference between diesel and petrol: 'One puts out **emissions** of one type, and the other puts out **emissions** of the other type.' Noble heads nodded. Lord...

In the *sunnow* sub-corpus there were 6 cases in which the context given on the concordance line indicated that the topics were about new cars and their reduced emissions. Five of these were clearly from the same article, listing several electric cars and comments on them. In 2 cases, which were consequent ones from the same article, the concern of the Greenpeace over the carbon dioxide emission is reported in a manner which can be read to downgrade the reliability of the said organisation. This is evident from the verb 'claim' which expresses that the author does not give the source his full trust (example 51).

Example 51 ...salt contamination from encroaching seas. Greenpeace claims Britain must reduce carbon dioxide **emissions** by a fifth by the year 2005. Environment Minister Michael Meacher HAS pledged to cut...

In the rest of the cases in the *sunnow* sub-corpus various topics were handled. In one case tips to consumers on how to cut down emissions were given and, in another, the word 'emission' was used in a humorous manner (example 52) in a context which reported an important appointment. It is probable that the joke draws attention away from the critical issue itself. There was one case in the *sunnow* sub-corpus in which the context grouping was not possible, and this case (example 79) will be discussed in chapter 6 below.

Example 52 ...JOHN PRESCOTT has been made Minister for Smog. His first job will be to cut down on hot air **emissions**. He's going to gag Jeffrey Archer and Ken Livingstone. <hl> Tragic Karen had four clips in...

All in all, in the almost sixty concordance lines provided by the *times* sub-corpora on this node word, there was no sign of a hostile attitude towards the environmental concerns themselves. In addition, the node word appeared in contexts which seem to reveal one important concern of the newspaper, namely cars. Almost all the examples had to do with cars, fuels, engines and their emissions. The concern of the strict emission regulations of the state of California were also referred to in some examples. In two cases, the context was not extensive enough to reveal whether the text was from reported speech or if it was the newspaper's own opinion, but even these two were either neutral or positive towards the topic matter.

In the *sunnow* sub-corpus the concordance examples indicate that the attitude of the *Sun* towards emissions is a serious one, although their attitude towards the environmental group Greenpeace is shown to be unappreciative by the two examples cited above.

5.2.4 'RECYCLE' AND ITS DERIVATIVES

The two meanings given in the Oxford Advanced Learner's Dictionary for the entry 'recycle' are "to treat things that have already been used so that they can be used again" and "to obtain the material for new products from things that have already been used, by treating them" (1995: 387).

Some of the most statistically meaningful collocates to the node word 'recycle' are listed in Table 16 below. None of the collocates in the *times* sub-corpus get a T-score of more than 2.0, which is the result of the small number of concordance lines and the fact that the word is used in a variety of contexts. Still, the fact that 'waste' and 'newspapers' are amongst the top five, means that the main meaning of the node word is connected to the ideology of nature protection.

Table 16: The most common collocates of the node words starting with the character string 'recycl*' in the *times* and the *sunnow* sub-corpora, rated by T-score.

times			sunnow		
collocate	nr	T-score	collocate	nr	T-score
metals	4	1.998756	be	3	1.435371
it	9	1.853267	rubbish	2	1.412116
from	7	1.851927	could	2	1.318028
waste	3	1.722896	will	2	1.142369
newspapers	3	1.718139	they	2	1.118710
ball	3	1.669539	outhalf	1	0.999984
car	3	1.626548	directories	1	0.999951
old	3	1.556721	hiscox	1	0.999934
alcan	2	1.413059	empties	1	0.999901
insulation	2	1.412730	hempstead	1	0.999753
reduction	2	1.404211	hemel	1	0.999720

In the *sunnow* sub-corpus the high position of such words as 'rubbish', 'empties' and 'fertiliser' indicate that the word is used widely in the context of nature protection. However, the small number of examples results in the fact that no collocate reaches even the T-score of 1.5 and only 5 collocates reach 1.0.

The focal word 'recycle' provided almost 5,9 % of the data for this study. By far the most common word form was 'recycling' with 31 examples in the *times* sub-corpus and 7 in the *sunnow* sub-corpus. The rest of the cases, 25 in the *times* and 5 in the *sunnow* sub-corpus, were various tenses of the verb 'recycle'.

In the *times* sub-corpus there were 56 cases in all, but 19 of them appeared in contexts that had nothing to do with nature protection. These included usage as a football term (moving the ball from one player to another) and in the contexts of republishing, re-electing etc. In 2 cases the node word was part of a title or a name, both of which are included in the deeper study below. From the 12 cases in the *sunnow* sub-corpus, only one was not related to nature protection and none of the node words appeared in a title or a name. The remaining concordance lines were allocated into the context groupings and Table 17 below shows the statistics of this allocation. Below the table, the biggest groupings are gone through one by one

Table 17: The concordance examples of node word 'recycle' allocated into the context groupings.

recycl*						total
	econ&business	aware&argument&concern	plan&project	control measures	various	
times	8		15	5	9	37
sunnow		2	3	3	3	11

econ&business

In the *times* sub-corpus there were 8 cases in which the node word was connected with economy and business. In these examples the articles discussed the metal recycling industry and their stocks (5 cases) (example 53) or other similar issues. These included also one of the cases in which the node word was a part of a company name.

Example 53 ...held public misconception that scrap metal is the prerequisite of such people. In fact metals **recycling** is a thriving multi-billion pound industry in the UK and arguably the most environmentally...

plan&project

In 8 cases in the *times* sub-corpus, the node word was used in contexts in which the issue was environmentally weighed projects and business ideas, such as recycling old telephone booths, making insulation material out of old newspapers and making boots out of used Formula 1 grand-prix racing tyres, as well as making razor blades out of ceramic or fertilisers out of sewage. In additional 7 cases, the node word was used in the context of the recycling experiments of a certain city (Brighton). In all of these examples the attitude towards the recycling was at least neutral, if not positive, as in the example (54).

Example 54 ...or decorating churchyards. To Brighton borough council they represent another opportunity for **recycling**. <p> It might seem

eccentric to recycle clippings of one-year-old yews, and the East Sussex...

In three cases in the *sunnow* sub-corpus the articles handled recycling techniques, projects and programmes as in example (55). In the example the act of recycling is approached with a positive attitude, as is visible in the annotation of Mr Sargent as “an expert on the subject”.

Example 55 ...During the three-day trip, the Mayo County Council contingent will examine waste management and **recycling** techniques. But Green TD Trevor Sargent - an expert on the subject - said: ‘This sounds...

control measures

In 5 cases in the *times* sub-corpus the topic handled the recycling centres, plants and bins. Mainly, these had to do with the functions of these utilities (e.g. in relation to car businesses), but one case (example 56) discussed the fast change in environmental thinking. In the *sunnow* sub-corpus there were 3 cases in which the contexts revealed that the topic in which the node word appeared handled the recycling of either fax machines, old directories or general rubbish.

Example 56 ...ago which, in my book means there has been a 20-fold improvement. <p> And who had heard of **recycling** centres in 1986? Car firms are making huge efforts to shape up, but obviously the message is...

others

In the rest of the cases in the *times* sub-corpus, the node word was used in a variety of contexts, from two cases in which the word characterised the leanings of some private citizen to three others that gave hints on how to recycle various goods to private people. There was also one case in which the node word was part of a name of a touring fashion show. In three cases the node word appeared in a context which some readers could interpret as somewhat hostile towards the ideology of environmentalism. These cases are handled in more detail in section 5.3 below.

In the sub-corpus of *sunnow*, there were two cases in which the context attempted to encourage the activity of recycling and three cases that were one-time reports of personal mishaps during recycling or stories that had little to do with the recycling itself and more with the possible side-effects (a boy trapped in a clothes recycling bin). The *sunnow* provided no examples of negative attitude towards recycling.

5.2.5 'FORESTRY'

The explanation given in the Oxford Advanced Learner's Dictionary for the noun 'forestry' is "the science and practice of planting, caring and managing forests: *the Forestry Commission*" (1995: 462, italics original). The name of the commission given in the explanation was present in over half of the cases in which the node word was used in the *times* sub-corpus, but not once in the *sunnow*.

The Forestry Commission is also presented in the collocate lists below (table 18) since the most common collocate in the *times* sub-corpus for the node word 'forestry' is 'commission' with a T-score of over 4.11 and 17 instances. This is also the most common word immediately following the node word and thus indicates that the node word appears most commonly in the name of the 'Forestry Commission' and has few other contexts in which it can appear, or usually appears. Only the two first collocates reach a score over 2.0 which is a clear result of the small amount of data and restricted usage of the node word. The scarce data provided by the *sunnow* sub-corpus is evident in Table 18 below as the most common collocate only has two appearances.

Table 18: The most common collocates of the node word 'forestry' in the *times* and *sunnow* sub-corpora, rated by T-score.

times			sunnow		
<u>collocate</u>	<u>nr</u>	<u>T-score</u>	<u>collocate</u>	<u>nr</u>	<u>T-score</u>
commission	17	4.113279	worker	2	1.412858
the	24	2.005869	were	2	1.359588
has	5	1.795794	in	2	1.049046
wildlife	2	1.410298	toasting	1	0.999945
trust	2	1.385153	splash	1	0.999495
chairman	2	1.363659	retired	1	0.998703
why	2	1.357093	unlikely	1	0.998698
who	3	1.351200	1990	1	0.998648
demography	1	0.999917	51	1	0.998401
ridgeway	1	0.999917	5million	1	0.998401
tates	1	0.999917	board	1	0.995610

The focal word 'forestry' provided only about 2.7 percent of the data for the present study. In the *times* sub-corpus there were 30 concordance lines in all with the node word, 4 of which had nothing to do with nature protection and forestry issues. In addition, in 17 cases the node word appeared in the name of the 'Forestry Commission'. In 5 of these cases, the issue had nothing to do with environmental issues (mentioning Christmas trees, nominations etc.). In the *sunnow* sub-corpus there were only four concordance lines with the node word. Of these only one had something to do with the issue itself, whereas the other three were simple mentions of the word in some other context (identifying someone as a forestry worker, an ex-worker or such worker's son). Since the amount of data remained so small, the cases are introduced only briefly in the following discussion.

In the mere 9 cases in the *times* sub-corpus in which the node word did not appear as a part of the name 'Forestry Commission', it appeared in a variety of contexts. In two cases, cars were once again discussed, pertaining to their suitability to forestry workers. In three cases, the node word was mentioned in a list of other issues, such as shipping, biology, economics, sports and telecom, in a context where the issue was not the forestry itself but something different. In one case the topic was guided walks, and in one case it was a commentary on the commission's sales of their land. In one case, the context was red squirrels, in a context where the attitude towards the commission was more

negative (example 57) and in one case the word appeared in a context where the need to consider green issues is stressed (example 58), which strengthens the image of this newspaper as environmentally considerate.

Example 57 ...killing 1,000 grey squirrels in Anglesey to ‘conserve’ 50 reds seems extraordinary. <p> Could it be that the **forestry** industry, which traditionally has preferred squirrels dead, regardless of colour, has...

Example 58 ...nearly two decades the fate of wild animals and rare plants was never a priority. The **forestry**-versus-tourism episode has forced the Government to confront green issues for the first time...

Name/Title

In the 12 cases in the *times* sub-corpus in which the word appeared in the name of the Forestry Commission, the issues dealt mostly with the commission’s projects, such as saving the red squirrels by planting trees that this species prefers (6 cases), wildlife tours (1 case) and the commission’s intent to introduce punitive car tolls and horse-riding curbs in order to fight against erosion (1 case).

In 4 instances, the mood of the context around the node word was hostile towards the commission. In one case, the type of forests created by the commission is criticised (example 59), in two cases, the commission’s sale of its plantations is questioned and in one case the amount of money swallowed by the commission is criticised. In example 59 the criticism of the commission’s actions is apparently also directed towards the ‘witless Greens’ as the latter part of the concordance example shows.

Example 59 ...the ground and the soil is turned from alkaline to acidic by the ill-chosen species. The **Forestry** Commission is an evil presence in most of its woods. No birds sing there. <p> The witless Greens...

The only case in the *sunnow* sub-corpus (example 60) appears in the name of the Irish Forestry Board in a context in which the attitude of the newspaper is neutral, professing no hostile wording around the board’s name.

Example 60 ...<dt> 31 May 1998 </dt> TOWNSFOLK in the border of Castleblaney were toasting the Irish **Forestry** Board yesterday. They were welcoming a decision by the board to give public access to the...

5.2.6 'PESTICIDE'

The explanation given in the Oxford Advanced Learner's Dictionary for the noun 'pesticide' is "a chemical substance used to kill pests . . . esp insects" and an example of the word's use is given as "*vegetables grown without the use of pesticides*" (1995: 865, italics original). The need to consider the purity of foodstuffs is taken into consideration in this dictionary entry. The need to restrict the use of these substances was also taken up in the corpus entries.

The most common and statistically significant collocates of the node word 'pesticide' in the *times* sub-corpus are presented in table 19 below. Due to the scarce data, collocates in the *sunnow* sub-corpus were irrelevant to the present study. In the *times* sub-corpus, the almost similarly low number of cases resulted in the fact that no collocate gained a T-score of over 2.0 and the first meaningful collocate 'trust' appeared only twice. Following this, the collocate lists and profiles offered next to no useful information.

Table 19: The most common collocates of the node word 'pesticide' in the *times* sub-corpus, rated by T-score.

collocate	times	
	nr	T-score
to	10	1.890107
and	8	1.587911
trust	2	1.394840
system	2	1.378292
use	2	1.377134
what	2	1.266760
no	2	1.236944
with	3	1.140701
on	3	1.061624
organophosphates	1	0.999917
cockroaches	1	0.999889

This focal word offered only 2.6 percent of the data for the present study. In the *times* sub-corpus there were 20 concordance lines, all of which dealt with the problem and use of pesticides. In three of these cases the node word appeared as a part of a title or a name. Again, due to the scarcity of the examples, the contexts in which the node word appeared are discussed only briefly below.

In the *times* sub-corpus there were 5 cases in which the node word appeared as a part of a report that handled disasters or accidents related to pesticides, exemplified below in example 61.

Example 61 ...arts teacher, is one of thousands of victims disabled by the modern use of chemicals and **pesticides**. <p> Her system became sensitised eight years ago when workmen botched the treatment of timber...

In 4 cases, the topic was golf courses and the decreasing use of pesticides there, these included one case in which the word was part of a name. In 3 cases the context indicated certain worry over the use of pesticides, first in a report of a university seminar and then in the newspapers own voice (example 62).

Example 62 ...This enables consumers to make informed decisions. But they cannot choose to avoid **pesticides** and pollutants which continue to be used despite concerns about damage to humans, animals and the environment...

There were also individual cases in which the node word appeared in such contexts as science reports on the possibilities of decreasing pesticide use, a report on a beetle that had developed immunity towards pesticides, improvements in pesticide dispense mechanics, the eco-friendliness of hedgehogs over pesticides (example 63) and in a law case involving exposure to pesticides. In one case the topic only briefly dealt with pesticides as the article discussed the types of advertisements in television.

Example 63 ...BHPS also points out that, since hedgehogs eat slugs, they are much more eco-friendly in the garden than **pesticides**. If you have a pond, lean a ramp into it, so that hedgehogs can climb out if they fall...

Of the three cases in which the node word was a part of a name or a title, one was already categorised above. One of the others dealt with law issues and the last briefly mentioned a committee discussing pesticides.

All in all, as exemplified by the examples above, none of the examples indicated hostility towards anti-pesticide ideals. Most of the examples expressed either worry over the issue or were neutral reports of events surrounding the issue.

In the *sunnow* sub-corpus there were two cases, one of which was in a letter from a reader and did not concern the issue as such, referring only to a humorous situation while buying pesticides. The other example reported the decrease in the number of bats (64) in a manner that affronted the dangers of pesticides.

Example 64 ...extinct in Britain since the wolf in the 18th century. The loss of meadows and trees, use of **pesticides** and roof timbers treated with toxic chemicals have been bad news for bats. To increase...

5.2.7 THE PHRASES WITH 'GREENHOUSE'

The explanation given in the Oxford Advanced Learner's Dictionary for the noun 'greenhouse gas' is "any of the gases that are thought to contribute to the rise in temperature of the earth's atmosphere, esp carbon dioxide" (1995: 522) and for the noun phrase 'the greenhouse effect' it is "the gradual rise in temperature of the earth's atmosphere. . ." (1995: 522). Both of these issues are very important from the point of view of the environmentalism. However, the phrases offered only few concordance lines in the two sub-corpora under study.

Due to the scarce data, the collocate tables and profiles from the sub-corpora were irrelevant to the present study. In the *times* sub-corpus, the low number of cases resulted in the fact that no collocate gained a T-score of over 2.0 and the first meaningful collocate 'trust' appeared only twice. Following this, the collocate lists and profiles offered next to no useful information.

These focal word phrases offered only 1.2 percent of the data for the present study. In the *times* sub-corpus there were 4 concordance lines, two of each

phrase. The two cases of 'greenhouse gas', both in plural, dealt with the increasing problems these gases represent (example 65).

Example 65 ...a discernible human influence on global climate through emissions of carbon dioxide and other **greenhouse gases** <p> The official figures from 1995 confirm their fears that, by 2050, the world could be...

The two cases of 'greenhouse effect' both appeared in reports of scientific reports and presented clear worry over the issue of rising temperatures, as in example 66.

Example 66 ...adds to fear of climate change</h>Nick Nuttall, Environment Correspondent<p> Warning on **greenhouse effect** THE Earth last year was at its hottest since records began. Scientists at the Meteorological...

In the *sunnow* sub-corpus there were six concordance lines worth of examples of the word phrases. There were four cases of the phrase 'greenhouse gas', one of which was from a scientific report and one from a political context in which necessity of reducing greenhouse gases is addressed. In this latter case (example 67), the newspaper views the politician's worry as an attack against motorists and undermines the believability of his words by using the word 'claims'. The two last concordance lines continued this defence of motorists by attacking the government decisions and ridiculing them, as in example 68.

Example 67 ...when attacking motorists. Prescott claims: 'We have to make these changes. We have to reduce **greenhouse gasses**. We have to make fundamental changes not only for a better transport system but also...

Example 68 ...objectives we have negotiated at the United Nations." Oh, please. Two Jags wouldn't know a **greenhouse gas** if one sneaked down his trouser leg. Cars are already cleaner than ever before. One Ford...

In the two cases of 'greenhouse effect' in the *sunnow* sub-corpus, the newspaper was more concerned over the global warming. In one of these, the

issue was the rising prices of vegetables and in the other the context was from a scientific report of the effect.

5.2.8 THE PHRASE ‘CLIMATE CHANGE’

The last focal word phrase to be examined here was the rarest of them all. With only three cases in the *times* sub-corpus and one in the *sunnow* sub-corpus, the focal word phrase amounted in mere 0.5 percent of all the applicable data for the present study.

In the *times* sub-corpus, the three cases appeared in various contexts. One of them was in an environmental report expressing concern over the climate change, one was from a scientific report of the reasons behind the extinction of creatures from the American continent 11,000 years ago and one discusses the relationship between the ocean and the climate change.

The only case in the *sunnow* sub-corpus was from a scientific report (example 69), which maintained an objective reporting style.

Example 69 ...levels than it was in 1950. Met Office expert David Griggs, from the intergovernmental panel on **climate change**, said: ‘Three degrees may not sound like much. But the difference between temperatures...

5.2.9 SUMMARY

The above examination of the individual focal words and word phrases showed that the words were used in very different contexts depending on the sub-corpus in which they appeared. Since a part of a word’s meaning depends on the way it is used and the ‘company’ that a word keeps (Firth 1957: 11,14, see section 2.4), it is important to take a look at the differences in the way the words were used in the two sub-corpora.

An overview of all the context groupings into which the focal words and phrases in the two sub-corpora were allocated is given in Table 20 below. This table does not include the cases in which the focal words appeared in a name or

a title of a person or a company. It can be seen from the table that the *sunnow* sub-corpus contained no examples of the focal words appearing in the context group ‘econ&business’. Similarly, this sub-corpus had only a few examples in some of the groups that were very common in the *times* sub-corpus, such as ‘plan&project’, ‘science’, ‘control measures’ and ‘law cases’. Consequently, it is evident that whereas the *times* sub-corpus provided a diversified collection of contexts in which the focal words appeared, the variety of contexts was more restricted in the *sunnow* sub-corpus.

Table 20: the total amount of concordance lines in each of the context groupings in the sub-corpora.

Group Totals	threat&damage	econ&business	aware&argument&concern	plan&project	politics	science	control measures	list of concerns	cars, golf	env. groups&agitators	law cases	assessments&studies	group connect	consumers	prioritization	various	total
times	58	67	41	48	38	43	35	35	13	18	20	13	13	7	6	88	543
sunnow	15	0	13	3	11	2	6	5	24	13	2	0	0	4	0	40	138
Total	73	67	54	51	49	45	41	40	37	31	22	13	13	11	6	128	681

When the numbers from both sub-corpora are added up, the most prolific context grouping is seen to be ‘threat&damage’ with as many as 73 cases (almost 11 % of all the cases). This goes a long way to say that environmental damage and the threat of such is an important source of news for the two newspapers. However, this was only the second biggest grouping in both of the sub-corpora separately. In the *times* sub-corpus, the biggest issue was ‘econ&business’, which, as was mentioned above, was completely ignored in the *sunnow*. The most common context in the *sunnow* was the ‘cars, golf’ grouping, which consisted only of contexts in which the polluting effect and eco-friendliness of privately owned cars were argued for. Furthermore, some other cases in other groupings possessed a mention of cars as well, which shows that they are one of the major issues of the tabloid from which the material in the sub-corpus is collected from.

A fact that was already noted in section 5.1 is also evident in this table: despite the fact that both the sub-corpora are almost equally extensive when it

comes to the number words they contain, the number of instances in which the present focal words appear is much smaller in the *sunnow* sub-corpus than it is in the *times*. This, combined with the fact that the paper's interest seems to be mainly focussed in privately owned cars, shows that environmental concerns in general are not a big issue in *The Sun*. These differences in the amount of coverage of the environmental issues are, likely, also due to the different readership and target group of these newspapers. *The Times* is directed for up-market readership and contains an extensive variety of news reports, including more environmental news, whereas the *Sun* is meant for down-market audience and concentrates more on features and gossip

When it comes to individual focal words, it was noted that the word form 'environment' appeared most often in context of political bodies and high-placed people in both sub-corpora, especially as a part of the names and titles of such parties. It was the derivative 'environmental' of this focal word, which was more clearly focussed on the issue of environmentalism, at least in the case of the *times* sub-corpus. The adverb form 'environmentally' was most often used in the phrase 'environmentally friendly' when describing various products and the derivative 'environmentalist' was used as a group marker and was the most laden with ideology.

The second most numerous focal word in these sub-corpora was 'pollution', which was most used when referring to air pollution and traffic pollution, and was more clearly focussed on environmentally weighed issues than the first focal word. Both newspapers evidenced concern over the environmental issues in conjunction with this focal word, although the *Sun* continued to downplay the environmental impact of cars.

The focal word 'emission' was found to resemble the focal word 'pollution' in its use, although 'emission' was used in more specific contexts, where the pollutants were given their actual names, such as 'carbon dioxide', and in the *times* sub-corpus, the scientific context was the most common. This focal word was also more clearly used in an environmental context as there were only a couple of cases that did not handle this topic.

In the case of the focal word 'recycle' it was noted that in the *times* sub-corpus it was rather widely used in contexts other than the actual recycling of

materials; possibly as a derogative word in case of re-elections and as a more neutral word in republishing. Furthermore, this focal word was used in rather narrow range of contexts in environmental sense, for example, in the *times* sub-corpus it was used mainly when talking about environmental plans and projects.

The focal word 'forestry' was most extensively used in the name 'Forestry Commission', which still appeared only in the *times* sub-corpus. There was only one relevant case of this focal word in the *sunnow* sub-corpus and it was in the name of 'the Irish Forestry Board'. Other than that, the word was used as a part of a job title in this sub-corpus.

Offering only 2.6 percent of the data for the present study, the focal word 'pesticide' was used in contexts of threat and damage reports and concern was voiced over the too common use of pesticides. Again, the *sunnow* sub-corpus contained only one relevant case of this focal word.

All of the focal word phrases, 'greenhouse gas', 'greenhouse effect' and 'climate change' had so few appearances that making conjectures from them is quite impossible. However, the *sunnow* sub-corpus contained a few examples which were weighed with a negative attitude towards greenhouse gas reductions (examples 67 and 68 above).

The next section (5.3) will further explore the differences in the two newspapers' attitude towards environmental issues, giving special attention to cases in which the attitude is such that can be interpreted by the reader as negative, or that may cause the reader's attitude to change towards negative.

5.3 Attitudes Professed in the Sub-Corpora

For the most part the attitude of the two newspapers, expressed in the two sub-corpora of Cobuild Direct corpus, were neutral and objective towards environmentalism and nature protection. However, there were several cases in which the context of one node word or the other was either hostile towards the ideology directly, or indirectly towards some issues related to it.

In the following subsections, some of the more visible cases of evidence of ideology (attitude) in the two sub-corpora will be discussed for those three focal words that evidenced such attitude, namely ‘environment’, ‘pollution’ and ‘recycle’. The rest of the focal words will be discussed briefly in subsection 5.3.4 below.

5.3.1 ATTITUDE IN ‘ENVIRONMENT’

Possible negative connotations about environmental issues were in the minority in the *times* sub-corpus when the node word was ‘environment’ and most of the contexts clearly indicated that the concern for the environment is an important issue in this newspaper and in the society that it reflects. There were only 6 cases in which the attitude was somewhat hostile towards environmental causes, but these were usually about some bordering issue such as the hostility that some fishermen feel when they observe that the seals and the fish seem to be better protected than they themselves, or certain charity organisations who fail to do what they have promised for the environment, or attacks against those who claim that cars have become more damaging to the environment during the past decade. All of these cases were reports of hostility expressed by some other party than the newspaper itself, and as such they work to increase the image of objectivity of the newspaper. In the following example (70), however, the context hints to a suspicious attitude towards the environmentalists by referring to them as the ‘green folk’:

Example 70 ...the most elusive political grail of the age. Green folk thrilled to Tony Blair’s speech on the **environment** at the Royal Society last week. Those used to his rhetoric on the other subjects remained...

A hint of hostility expressed by the newspaper itself is also apparent in another case (example 71). The fact that a certain firm is more interested in environment-friendly business than profit is looked down upon and it appears that profit is seen as the more important consideration for companies.

Example 71 ...salt. But she clearly is less interested in profit than in running a socially responsible **environment**-friendly business. While this may find favour with many including her customers, it is...

Whereas the attitude towards the issues of the environment is clearly positive, example 70 hints that it may not be so when it comes to the people who support environmentalism and nature protection. This requires more evidence, however.

In the *sunnow* sub-corpus there were only a few cases in which the attitude was somewhat hostile towards environmental concerns and these come up in precisely those cases where cars are on the stake. These cases do not attack the environmentalism itself, merely the fact that the government is raising the price of gas and the opinion of some who see the modern cars as a bigger threat to the environment than the older ones. Thus, all in all, the context of the root form 'environment' is relatively clear of negative attitude towards the ideology of environmentalism in both of the sub-corpora.

When the node word was 'environmental', possibly negative connotations were again in the clear minority in the *times* sub-corpus. In addition to the case of 'environmental agitator' mentioned above (example 21), there were only two other cases. In one of them the extinction of one species every four years is considered only natural and can as such be interpreted as downplaying the environmental concern, and in another the traditional Christmas dinner is referred to as 'an environmental crime of monstrous proportions'. The latter, although probably meant as a joke, can lessen the importance of other environmental worries in people's eyes by lessening the 'strength' of the term as is suggested by Foucault in his theory of the change of a word's meaning.

In the *sunnow* sub-corpus there is one case, in which a heavy negative attitude can be observed (example 72) and where environmental concerns are compared to anti-racism and anti-sexism, and described as "touchy-feely . . . junk":

Example 72 ...Pupils who can barely read and write are having their heads stuffed full of touchy-feely **environmental** junk and fashionable anti-racist, anti-sexist propaganda. Literacy lags behind social...

This clearly hostile case was the only one expressing such an attitude in the context of this node word, whereas most other cases professed the conventional concern over nature protection. However, the fact that this was printed in the newspaper in the first place insinuates a clear deficiency in the newspaper's objectivity. On the other hand, this case can be seen as an emphasising trick for the important issue of public education on the expense of some other important issues.

This derivative of the lemma ENVIRONMENT is also, for the most part, clear of any hostile meaning towards the ideology of environmentalism, although it is probable that cases such as example 72 above are likely to strengthen the anti-environmentalist attitude of those people who already have such feelings.

In case of the word form 'environmentally' there is not any hostile attitude towards the ideology and it is clear that 'environmentally friendly' products are presently considered an important subject. The case of objectivity and positive attitude is, however, quite different when the examples of 'environmentalist(s)' are considered. In the *times* sub-corpus this word was used as a way of defining a group of people with a set of beliefs that differ from the opinions of the main population (see subsection 5.2.1.3, especially example 26) and in one case the message of environmentalists was downplayed (example 27). In the *sunnow* sub-corpus the negative characterisation of environmentalists became even clearer with the addition of violence and fascist qualities (example 28).

All in all, the *times* sub-corpus showed greater concern over environmental matters, as is seen from the amount of concordance examples allocated into the appropriate group 'aware&argumentation&concern' (tables 6 and 8 above). However, from the evidence provided by this node word, it seems that whereas the attitude in these newspapers is generally positive and objective towards environmentally weighed issues, the case is not the same when the people fighting for these issues are discussed. Both newspapers demonstrated a certain degree of hostility towards environmentalists and it might be interesting to expand the study of this attitude to other words that refer to such environmental groups.

5.3.2 ATTITUDE IN 'POLLUTION'

From the data provided by the *times* sub-corpus on the node word lemma POLLUTION, no examples of negative attitude were found. Quite the contrary, some examples expressed hostility towards some parties that effectively ignore their polluting effect (see example 33).

The concordance lines from the *sunnow* sub-corpus offered 7 examples in which the node word 'pollution' appeared in a negatively weighed context. Three of these were already discussed in subsection 5.2.2.1 above (example 39), concerning cars and their pollution. In two other cases, both apparently from one single commentary, the reporter claimed that there is no such thing as pollution problem in his 'city'. In one case the factuality of certain pollution disaster was put to question (example 73) by using the word 'alleged' and in another case the word 'pollution' was connected with the adjective 'entertaining' in a manner that is likely to downplay the seriousness of the pollution effect of the event under discussion and pollution in general (example 74).

Example 73 ...rap </hl> <dt> 08 April 1998 </dt> West of Scotland Water has been charged over alleged diesel **pollution** which left 60,000 people without a mains supply last December. <hl> DIY man zapped to death...

Example 74 ...One race, Nigel Mansell's comeback and the always entertaining Goodwood Festival of Noise, **Pollution** and Danger. I missed them all but I don't care because I've been on holiday - two weeks of...

In addition to these, example 43 that was handled above added to the air of negligence or negative attitude expressed in this tabloid. However, according to the allocation made in section 5.2, the *sunnow* had more examples in the group that comprised of awareness and concern than in the case of the previous node word (four cases instead of one). It is thus apparent that despite almost the same number of applicable appearances of this node word in the sub-corpus, the focal word is more focussed on environmental issues and is used more both

in contexts of concern and disaster reports than it is in situations that are negatively weighed towards environmental issues.

The *times* sub-corpus gave similar evidence of the emphasis of this focal word. This focal word, despite its fewer applicable appearances, was used more in the contexts of 'aware&argument&concern', 'threat&damage', 'plan&project' than the focal word 'environment'. However, the *times* sub-corpus offered no examples of negatively weighed contexts for this focal word.

5.3.3 ATTITUDE IN 'RECYCLE'

On the whole, in the context of the focal word 'recycle', the attitude in the two sub-corpora was positive since both evidenced cases in which recycling plans were discussed and the activity of recycling was encouraged. However, as was indicated in the end of subsection 5.2.4, the *times* sub-corpus contained three examples that could be interpreted as negative by the reader. The first one of these told people how they can forget the recycling and make a nice bonfire out of their garden waste (example 75), which is a slight belittlement of the importance of recycling. The two other examples merely gave a slight negative connotation to the node word by connecting it with the unwelcome activity of the show-business (example 76).

Example 75 ...is nothing like your own bonfire. Strictly speaking, we should by now be finding other ways of **recycling** chipping our brushwood and composting our paper and plant waste, but once or twice a year a...

Example 76 ...Why <p> Maybe the showbiz world has merely become so ecology-minded that it has discovered **recycling**. Or maybe, as Dorothy Parker noted, the only 'ism that Hollywood believes in is plagiarism.

Even though the three negatively weighed cases could be so interpreted by some readers, they are not negative towards the ideology of environmentalism as such. The fact that there are no cases of the node word used in a plainly negative context which would be directed towards this ideology suggests that recycling is taken seriously in both newspapers.

5.3.4 ATTITUDE IN THE OTHER FOCAL WORDS

In the cases of the focal words other than the ones discussed in the above subsections, the attitude towards environmental issues was clearly more neutral in both sub-corpora. This may be partly because these focal words were used in drastically fewer cases than the ones discussed above as well as in more focussed contexts. For example, 'emission' was used in the *times* sub-corpus almost solely when discussing car exhaust emissions in an objective scientific context. In the *sunnow* sub-corpus the concentration was on nuclear emissions and new car engines. Example 51 presented above (in subsection 5.2.3) was one of the two cases that disparaged the trustworthiness of the Greenpeace by using words such as 'claim' when referring to what the organisation had said.

The focal word 'forestry' offered even less material that would have evidenced negative image of nature protection. The one case in the *times* sub-corpus in which hostility is expressed (example 57 above in subsection 5.2.5), is plainly intended towards the forestry industry, and is pro-environmental as is example 58 after it. Since there was only one applicable example of this word's use from the *sunnow* sub-corpus, that newspaper's attitude is impossible to determine for this focal word.

The context around the focal word 'pesticide' was clearly pro-environmental in the *times* sub-corpus, since most of the concordance examples dealt with the problems caused by the pesticides and the necessity to decrease their use and to bring in alternative ways of handling pest problems, as in example 63 above (subsection 5.2.6). This same attitude was evident also in the single relevant case in the *sunnow* sub-corpus (in example 64).

In the case of the focal word phrases 'greenhouse gas' and 'greenhouse effect', the *times* sub-corpus expressed concern over the rising global temperatures (examples 65 and 66 in subsection 5.2.7) and was generally pro-environmental in attitude. However, three of the six examples in the *sunnow* sub-corpus downplayed the dangers of greenhouse gasses and ridiculed the government that is proposing to cut down these emissions (examples 67 and 68

above and 77 below, which continues directly from example 68). This hostile attitude towards the environmental cause is once again in the context of cars and continues this newspaper's trend of underplaying the dangers of car emissions.

Example 77 ...produces less emission than 20 Fiestas two decades ago. This has nothing to do with cutting **greenhouse gases** and everything to do with curbing individual freedom and imposing tax increases. You...

The last focal word phrase, 'climate change' was used in objective and pro-environmental contexts in both of the corpora, but since there were only four applicable cases in total, the attitude of the newspapers is hard to draw on their basis.

5.3.5 SUMMARY

The above discussion on the attitude expressed in the two sub-corpora towards environmental causes showed that neither of the newspapers manage to attain complete objectivity. As mentioned in subsection 5.2.9, the fact that the *sunnow* sub-corpus contained only a fourth of the amount of concordance examples provided by the *times* sub-corpus indicates that the tabloid does not consider environmental issues an important topic. Because the present study did not include data on the amount of coverage various news events receive in general, it is not possible to draw judgements from the amount of coverage given to environmental issues in the *times* sub-corpus, other than the fact that it was four times the amount that the *Sun* gave it and this difference between the newspapers is due to the differing readerships of these newspapers (see section 5.2.9).

The *times* sub-corpus contained fewer examples of negative attitude towards environmental issues than the *sunnow*. This hostility in The Times was almost solely visible in the word choices used when referring to people or groups that support environmental concerns, such as environmentalists, as was visible in examples 70 and 71 above, as well as in example 21. Other than that, *The*

Times reported in a manner that can be called pro-environmental and, once in a while, succumbed to actually romanticising nature (examples 9 and 10 in subsection 5.2.1.1).

On the other hand, the *sunnow* sub-corpus, which provided only a quarter of the number of concordance examples the *times* did, displayed a more numerous and varied range of occurrences of negative attitude towards environmental causes. The context in the concordance examples showed that the *Sun* criticised heavily such environmentally conscious government decisions and discussions that worked against car owners, including raising gas prices and generally claiming that cars do pollute. More ideologically laden examples of hostility included such cases that attacked environmental concerns (as in example 72) and people who support them (example 28). All in all, the *Sun* expends much of its reports on environmental topics into attempts to make the readers ignore the environmental impact of the pollution that cars emit (subsection 5.2.9).

When compared, the difference between the two newspapers, *The Times* and the *Sun* is clear: *The Times* wrote about environmental issues four times as often as the *Sun* did and in virtually all cases in a more objective and positive manner. The differing readership of these newspapers is probably also to blame for the differences in the reporting style and attitude of these newspapers (see section 4.2). The *Sun* is targeted for down-market readership and will thus concentrate on issues that are deemed important to down-market people, namely, in this case, private car-owners and the protection of their conscience against claims that they may be causing harm to their environment. A lot of the material in the newspaper is clearly aimed for this end. On the other hand, the up-market readership of *The Times* does not have to worry about high petrol prices as much and the newspaper has a more objective attitude towards environmental issues and the environmental ideology.

On the whole, it is clear that most of the focal words examined in the present study were used mainly in an objective manner, and thus the kind of a shift in the meaning of the words (meaning all the associations that a word can have, see section 2.1 and subsection 2.2.2) that would have indicated negative attitude towards environmentalism was not present. However, an exception to this is provided by the words and phrases referring to environmental groups,

and more precisely by the derivative 'environmentalist' of the focal word 'environment'. The attitude in both of the newspapers was more negative towards these environmental groups than towards any of the actual environmental issues, and thus it is clear, following Stubb's (1996: 92) reasoning of reinforcement, that this derivative of the focal word has gained additional meaning that marks the environmentalists negatively even in contexts in which open negative attitude is not present or intended.

In the same manner, the word phrase 'greenhouse gas' was used in very negative contexts in the *sunnow* sub-corpus. Although the negativity was targeted against actions that were aimed against cars, it is probable that the focal word phrase itself has gained an air of negativity amongst the newspaper's readership by association. The word pair is connected to the issue of increasing petrol prices and when it is mentioned in context other than the price of the petrol, some readers may nevertheless be reminded of this issue and regard the environmental issue with hostility.

The next chapter (6) will discuss the results of the present study as they pertain to the usefulness of the corpus analysis method for the kind of study of focal words as was proposed by Firth in 1957.

6 DISCUSSION: Applicability of the Corpus Method

An underlying aim of the present study has been to investigate the suitability of the corpus analysis method to the semantic study of newspaper texts and focal words. In the analysis of chapter 5 the research questions set in chapter 3 were answered as far as it came to the differences between the two newspapers in how they positioned themselves on the issue of environment as well as their similarities in this issue. However, the discussion did not handle the effects of the method used in the study; i.e. the limitations and possibilities that the corpus method gave to the present study. Therefore, this chapter is dedicated fully to this kind of debate over the corpus analysis method.

The first and most important factor that the corpus method affected was the amount and type of data that was possible to use in the study. No other method would have been able to provide such an extensive account of the focal words and the way they were used in the two sub-corpora over an extensive time period. However, the corpus used in the present study, the Cobuild-direct corpus, induced also limitations to the accuracy and comparability of the material. Since the text from the two newspapers had been collected from different time periods, two years apart, there may be a certain amount of change in the overall attitude towards environmentalism that may have affected the data in the *sunnow* sub-corpus more than that in the *times* sub-corpus, since the *sunnow* contains articles from a later time period and the newspaper has thus been longer under the influence of the changing political attitude towards the ideology of environmentalism.

Another restriction inflicted by the choice of corpus is the fact that both of the studied newspapers are ultimately owned by the same company, the *News Corporation*. This corporation has been under heavy attack from other media because of the numerous occasions in which the corporation has intentionally influenced the content of their newspapers and forced their journalists and editors to change their articles (see <http://www.ccms-infobase.com> for a short discussion on this matter). Because of this strong link between these two

newspapers, the results of the present study may show less differences between these two papers than a similar study would have shown between two newspapers from different news organisations.

These restrictions, however, are caused by the choice of corpus only in the present study and they do not denote that the corpus analysis method itself would be improper for the analysis of focal words in other studies. In addition, despite these restrictions, the analysis in chapter 5 was able to find definite differences in the attitudes of the newspapers towards environmental issues.

A further limitation, caused by the fact that the present study was made with only 200 characters of the context of the node word available, whereas the Cobuild-direct corpus might have been able to provide as much as 500 characters, was that on a few occasions the context was too limited for drawing out the topic of the text in question. There was also one case, the one mentioned in subsection 5.2.2.2 under 'polluting', in which it was not possible to say whether the newspaper was behind the attitude expressed in a piece of text or if it was an attitude of some other party that was merely reported in the newspaper. Furthermore, since the sub-corpora included also letters from the readership of these two newspapers, the limited context may have hidden the fact that some cases that have been analysed above have not actually been written by the journalists of the newspapers themselves. On the other hand, the fact that the newspaper has attracted such letters and readership may be an indication that the newspaper has expressed opinions that conform with those the readers have and the kind they want to read about. Therefore, this bias is not detrimental to the results of the present study.

The same restriction of limited text context was also at work in the following case. Example 78 below is a concordance example from the *sunnow* sub-corpus and was allocated into the context group 'cars, golf'. From this example, it is difficult to determine how the referral to someone's trouser leg might be relevant to car technology that pollutes less. Similarly, the issue to which the word 'this' refers to is unclear. All in all, it seems that in this example, the context is too limited to make it possible to deduce what the attitude expressed in the text is.

Example 78 ...his trouser leg. Cars are already cleaner than ever before. One Ford Fiesta now produces less **emission** than 20 Fiestas two decades ago. This has nothing to do with cutting greenhouse gases and...

However, with the addition of example 77 presented above in subsection 5.3.4, we get more of the context after the node word, namely: “everything to do with curbing individual freedom and imposing tax increases. You...”. This link between the two concordance examples might have gone unnoticed if the phrase ‘greenhouse gases’ had not appeared at the end of example 78, and similarly, the target of the hostility, namely, the perceived curbing of individual freedom, would not have been found out.

Moreover, the case at point does not end here. One more concordance example already presented in chapter 5 is also connected with the two examples discussed above. Example 68, presented in subsection 5.2.7, supplies some context before the node word in example 78: “...objectives we have negotiated at the United Nations.” Oh, please. Two Jags wouldn't know a greenhouse gas if one sneaked down his trouser leg.” With the addition of this context, the hostile attitude expressed in the article that these examples were drawn from is further demonstrated. This latest addition to the context of example 78 would have gone undetected if it were not for the rather memorable word pair ‘trouser leg’ that appeared in both of these examples.

Despite this addition to the context of the concordance example 78, the case was not added to the ones that were deemed as hostile or negative in their attitude towards the environment. This is because of two points. First, the objective of the study was to find out whether corpus research was able to provide sufficient information about a piece of text to make it possible to properly analyse the attitude of the context that it came from. In cases like the above one, if not in this case especially, it was not able to achieve this. The second point is connected to another objective of the present study, which was to study the attitude as it pertains to the focal words at hand, i.e. their immediate context and its effect to the meaning of the focal word (section 2.1). In the case of the above example (78) the expressed attitude is not directed towards the word ‘emission’ as much as it is towards the other included focal word pair, ‘greenhouse gas’, as this is found in the immediate context of the

hostile sentences, whereas ‘emission’ appears in a sentence that simply reports a fact of the car emissions. This sentence is used simply as a supporting argument (“One Ford Fiesta now produces less emission than 20 Fiestas two decades ago.”) for the case the journalist wants to emphasise, namely that there is no need to cut down the greenhouse gases. This argument is the one that expresses hostility towards environmental causes.

The above discussion marks the gap between the type of discourse analysis that strives to take in all the aspects that affect the tone and style of the article and that has to use complete articles and texts in order to do this, and the kind of research that the corpus method allows, which is the study of the immediate contexts of the node words. Such corpus analysis that is used in the present study concentrates on the immediate semantic or linguistic context of the node word and wilfully discards all such evidence that falls outside the scope of the available context. It should be added that even though the Cobuild-direct corpus offers a chance to print out up to 500 characters of the context of the node word and the few cases that suffered from limited context in the present study would probably have benefited from that kind of range, many researchers who use corpuses to locate collocates and word usage patterns, use only the about 80 characters of context that conventional computer screens are able to comfortably present so that the node words are located one below the other, and compared to that, the 200 characters of context available in the present study is already extensive and proved enough in most cases.

Despite the cases discussed above, the corpus method succeeded in providing enough context for the focal words in most of the cases, at least as far as the categorisation of them into the context groupings required. Only on two occasions was the context unclear enough to prevent this. One of them is presented in example 79 below. This example is also from the *sunnow* sub-corpus and it was put into the ‘various’ context group.

Example 79 ...rules for people who want to have a go. There’s no driving test, no age limit and no noise or **emission** tests. You can simply go where you want as fast as you want. It may not be advisable but...

However, this kind of cases were not numerous enough to affect the results of the present study, as can be seen from the fact that the categorisation process in chapter 5 was, for the most part, successful both in determining the different weighting that the two newspapers give to environmental matters and the situations in which they use the various words. For example, when reporting threat or damage situations, it was noted that the *Sun* uses mostly the root form 'environment' in various ways (such as 'damage/threat to the environment'), whereas *The Times* relies on using the adjective 'environmental' as a modifier for, for example, the nouns 'damage' and 'threat' (see example 15 above).

The above suggests that the corpus analysis method is useful in the quantitative analysis of various kinds of qualitative groupings of the immediate context and in finding the immediate collocates. In the past the corpora have been used in finding and studying various sentence patterns and word meanings. However, it was one of the aims of the present study to analyse also the attitude of the two newspapers towards environmental issues and it was in this that some problems with the method surfaced.

As far as it comes to the general attitude of these newspapers towards environmentalism, the present study method can only provide hints. As is proved by the analysis of example 78 above, a single focal word with limited context available cannot always provide insight into the attitude expressed in the news article from which the example was drawn. Thus, even though the analysis in chapter 5 concluded that the two newspapers were mostly objective in their reporting, given that the negative occurrences were clearly in the minority in the corpus examples drawn from the data, it is not known how many of the articles in which these focal words appeared were, in their overall attitude, negative or even hostile towards environmentalism. Therefore, a corpus analysis limited to the near context of the node words cannot provide a whole picture of the attitudes presented in the whole text from which they are drawn from. This problem can be solved by either accessing the full articles from which the examples were extracted and studying them, which was not possible with the corpus used in the present study but is possible with many others, or by limiting the focus of the study to the attitudes presented in the

close neighbourhood of the node words and to the way these attitudes may affect the meaning of the node words.

This kind of a more limited approach to language study made it possible for the present writer to find out that the word 'environmentalist' has a negative quality to it, both because it is often used in the newspapers in texts that use the word as if to refer to a group that is outside the main society and has different values than most people and because of the openly hostile treatment of them in many articles. It would be beneficial to extend the examination to several other words used to refer to environmental groups, some of which are negative in their attitude themselves, such as the 'green folk' (example 70 in subsection 5.3.1).

Whereas the attitude of the two newspapers towards environmental issues was found to be difficult to analyse with the available data, although a general sense of objectivity was clear, it was easier to note differences between these newspapers. The corpus method provided enough context and material to make it clear that environmental issues are less of a topic in the *Sun* than they are in *The Times*, as well as the fact that the tabloid is more negative in its attitude towards these issues in general (see sections 5.2.9 and 5.3.5). Thus, the corpus analysis method proved its usefulness for comparative study where two databases were analysed. Without the Cobuild-direct corpus, it would have been impossible to count the number of instances of the various focal words in as many newspaper issues as were collected in the corpus, let alone find and analyse all of them.

All in all, the corpus method has its indisputable place in language analysis. Various corpora provide a way to analyse general trends in vast databases of language in a manner that is replicable by any other researcher, and especially the quantitative data that the corpus method makes available provides a good base for further qualitative analysis. It was said in section 2.4 that some researchers have criticised corpus studies for their merely quantitative findings. However, they are, as Williams (1982: 19) points out, "essential to any developed sociology of culture". They can be an important addition especially if the researcher studies the data on qualitative basis as well.

7 CONCLUSION

The present study has been based partly on the theory mentioned in section 2.1 that words do not have set meanings and that they carry with them the weight of all the different situations in which they have been used. Certain words and word pairs, such as ‘democracy’ and ‘free will’ are not just words, but also concepts and ideas that carry ideological weight. They can be viewed as words that have sociological importance. In his paper from 1935 Firth (reprinted in 1957: 7-33) called for a detailed analysis of the “contextual distribution of sociologically important words” (1957: 10), which he called focal words.

In the present study the focal words were selected so that they presented the basic vocabulary used in the various discussions in which environmental topics surface. Environmentalism is an ideology that has been struggling against capitalism and profit seeking as well as industrial development for the past couple of decades. During the 1990s, this awakening concern for the state of the environment has increased in popularity and governments as well as private citizens have had to start taking their environment into account in their decision making.

The present study set out to examine the ways in which these focal words are used and how they distribute contextually in the articles of two newspapers, *The Times* and the *Sun*. In addition, an attempt was made to discern the ideological standpoint of these newspapers towards environmentalism, and the meaning that the focal words have in the newspapers. The method that was used to achieve these results, and which was under examination itself, was the method of corpus analysis.

As presented in this study, the corpus analysis method was mostly capable of satisfying the requirements of the present study. The study of the context groups in which the focal words appeared was the most successfully accomplished and it was in this that the corpus method truly showed its strength. The contextual distribution of the focal words presented interesting

facts about the two newspapers, especially the infatuation of the *Sun* to underplay the environmental effects of automobiles. As far as the other aspects of the study were concerned, the corpus method was powerful in finding the focal words from a vast source of newspaper texts. In the analysis of these examples a definite result was achieved in as much as the differences between the newspapers in their attitude towards environmentalism was concerned. In addition, the negative associations that the word 'environmentalist' carries were noted, as well as those of the word phrase 'greenhouse gas' in the *Sun*.

However, the corpus method was unable to provide the kind of data that would have been needed to answer the question of the overall attitude of the two newspapers. For this, an access to the complete articles would have been required. The Cobuild-direct does not provide this service to its users, although the Bank of English corpus, from which the Cobuild-direct is a condensed, publicly available version, does.

On the other hand, quantitative results can also be decisive when racist or other hostile attitudes are studied in newspapers. According to van Dijk (1998), a single case of pro-racist attitude will reveal the speaker's demeanour, since non-racists would never make racist remarks in the first place. He goes on to explain that this is the reason why quality papers will not make blatantly obvious remarks about ethnic minorities. In the present study, there were, in the end, only a few cases in which hostile attitude towards environmentalists was visible in the two newspapers. The analysis presented only a single blatantly hostile example in the *times* sub-corpus and a greater number of examples that demonstrated the more comprehensive hostility that was evident in the *sunnow* sub-corpus. Most of the examples in the *times* sub-corpus supported the theory by van Dijk that quality papers use more subtle methods to make a negative image of cultural or ideological others. Thus, if taken this way, the mere existence of anti-environmentalist cases in both of the newspapers showed that they have a certain degree of anti-environmental attitude in their reporting and thus the question about the newspaper's general attitude was also answered.

A weakness in the present study was also the fact that the data that included over 800 concordance examples even after the ones that did not concern

environmental issues were removed was so extensive that, in the limits of the present study, only a fraction of these examples could be presented in the analysis and even a smaller number of these included an in-depth analysis. Therefore, a large portion of the study is still open to the criticism of merely quantitative results that the corpus studies are often accused of. Still, the qualitative analysis of the attitude of the two newspapers provided insight into the differences that the two newspapers, targeted to different parts of the readership market, have in their presentation of the various environmental issues.

It is the proved subjectivity of newspaper reports that is very important to remember in the modern world. It is obvious that one should try to read several newspapers and remember the commercial nature of all newspapers in order to form an objective opinion about any event, but the fact remains that most people read only one or two newspapers all through their lives. Therefore their views can be greatly affected by biased journalism. In the future, it could be beneficial to pay more attention to the question whether something ought to be done to these biases in news reporting or if they should be taken for granted and accepted the way they are.

The method of corpus analysis proved to be of critical importance in the present study and without such a method it would not have been possible to make a study of focal words in the way Firth intended it. The question about the general attitude of the newspapers that could not be fully answered fell too much outside the scope of the method, particularly due to the constraints on the available context inherent in the Cobuild-direct corpus. Another factor that is always important to remember in text analysis is that it is a subjective process and many of the examples given in the present study have been of the kind that could be interpreted in many ways, depending on the past experiences and personal opinions of the reader. This was taken into account in all the cases in which the attitude professed in the examples was not perfectly clear.

In any future research projects made with the help of corpus analysis, the research questions should be restricted into areas that can be answered with the limited context provided by the corpus method and they should thus concentrate on the key, or node words, themselves. On the other hand, a full

study of attitude should be done on complete articles and complete databases on the newspapers. The method of corpus analysis is certainly able to provide guidelines into the issue and is of great help when one is trying to find such texts in which certain focal words appear, but the concordance lines are too restricted for a complete study of such topics as attitude and ideology are. In any pilot study into this area, however, corpus offers a great possibility to take an overview of the issue, as was proved in the present study and its findings.

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Appendix 1

EXAMPLE OF A CONCORDANCE LIST

TIM area will have a much higher proportion of Scots pine and Norway spruce," says Bill Burlton, **environment** forester at Kielder. <p> The changes will take effect over 40 years, which is about the

TIM of its customers" through the organisation as they in turn keep pace with the business **environment**. <p> There are many 'soft" activities in industry and commerce that are hard to measure.

TIM in the workplace but should realise that they, too, have been in a 'restricted business **environment** <p> <h> Airbus and Boeing land $ 3bn PAL deal;Philippine Airlines </h> Ross

TIM thirds of predicted relocation activity, in fact, reflects fundamental changes in the business **environment** rather than concern solely over operating costs, as in the past. 'Mergers, acquisitions and

TIM and his football progressed quickly, though its ambitions were capped by sanctions, limited by **environment**. As a teenager, Radebe was selected to represent the under-18s of Bophuthatswana, an

TIM s chief executive, said: 'Whichever way interest rates move next we shall, in the changed **environment**, make sure that our savers and borrowers get ongoing visible and tangible benefits from

TIM house sales <p> He's misleading the House," growled Frank Dobson, the Opposition's chief **environment** spokesman, but he was ordered by Betty Boothroyd, the Speaker to rephrase. <p> He's made it

TIM Together they ran a hotel in Oban. 'I was born into what could be called a middle-class **environment**, but my parents were very working class so I've always had problems placing myself." <p> He

TIM on government being consistent. That does not mean their interests are paramount. The Commons **Environment** Select Committee rejected any delay in the original deadline for solvent emissions but it is

TIM a vehicle for skills development. Real industrial skills are tested in a highly competitive **environment** <p> The hope is that competing on skills will become a regular activity for all young

TIM From Mr Andrew Smyth <p> Sir, As a manufacturer, my company exists in a fiercely competitive **environment** relying on our own efforts for its success or failure. We would not expect to be shown much

TIM and building societies is under threat as they battle in an increasingly fierce competitive **environment**. According to research published this week by Standard & Poor's, the credit rating agency,

TIM dusted it down and decided to see if it could provide a way of producing a common computer **environment** for the networked world. <p> What happened far exceeded Joy's expectations. The company

Appendix 2

EXAMPLE OF A COLLOCATE PICTURE

Cursor at row 1, column 2.

caused	by	carbon	dioxide	NODE	by	carbon	dioxide	by
on	tabs	man	made	NODE	tests	20	fiestas	and
fiesta	vehicles	that	hydrocarbo	NODE	of	watchdogs	rav4	warmly
electric	reduce	produces	exhaust	NODE	environmen	dounreay	sepa	whitehall
proper	worldwide	diesel	radioactiv	NODE	toyota	electric	solar	motors
cent	pledged	noise	zero	NODE	honda	dream	convention	smoke
must	sale	superb	reduce	NODE	laws	far	reduced	simply
other	discovered	hot	fail	NODE	compared	up	fifth	often
old	cars	number	nuclear	NODE	coming	you	britain	claimed
down	less	which	less	NODE	car	said	per	cent
only	lead	or	air	NODE	than	from	going	15
no	does	can	cut	NODE	would	be	more	ve
world	another	on	break	NODE	from	that	can	two
has	no	to	or	NODE	he	s	had	one
we	now		of	NODE	and	in	he	been
but	on		and	NODE		a	i	you
and	in			NODE		to	a	to
	the			NODE				