

A Study of the Application of Critical Discourse Analysis to Ecolinguistics and the Teaching of Eco-Literacy

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1. Introduction

In this paper I argue for, and try to demonstrate the value of, the addition of a linguistic element to the investigation of and teaching about environmental issues. There are, of course, many ways of paying close attention to language which may be of use to us in trying to understand the environment and our relation to it, but in this paper I would like to concentrate on just one of them. The linguistic approach that I shall be discussing is known as Critical Discourse Analysis (CDA). Although there are several kinds of CDA, I shall be introducing one particular version of CDA, based closely on Systemic-Functional Linguistics (SFL), which I have been developing for use in my own pedagogical situation, teaching a graduate course in Environmental Discourse at Nagoya University.

To exemplify the principles and methodology of my approach, I shall use two texts relating to the contentious issue of Japanese whaling and Greenpeace International's campaign against it. One text is from the website of the organization which coordinates Japanese whaling, the Japanese Institute for Cetacean Research (ICR). The other text is from the website of Greenpeace International (GPI). Both texts refer to a collision that took place in the Antarctic Ocean on 21st December 1999 between the Greenpeace ship 'Arctic Sunrise' and the Japanese 'whaling ship' (or 'research vessel') the 'Nisshin-maru'. I shall use quotations from these texts to show how both sides use formal linguistic features to encode their respective ideological positions. That such encoding is inevitable is apparent from the very difficulty I faced in deciding how to describe the activity in which the Japanese are engaged, where 'whaling' and 'research' are both, ideologically, highly-loaded terms. However, I would like to emphasize that my intention in using these two texts is not to engage in 'Japan-bashing'. I shall not be trying to prove that

Japanese whaling is wrong, and I shall not be judging between these two texts regarding which side is telling the truth. Rather, my aim is to show how a linguistically-oriented and theoretically-informed close-reading of environmental texts such as these can help us understand not just *what* they mean, but *how* they mean. However, understanding how a text comes to mean what it does is only the first level of analysis. The second level is the evaluation of how effective the text is at achieving its purpose, which involves relating features of text to features of the context of situation and culture.

2. What is Systemic-Functional Grammar (SFL)?

Systemic-Functional Linguistics is an approach to language that views language in its *social context*, as an instrument of social interaction, rather than as a formal, cognitive system which can be studied in isolation from social context. SFL is based on a descriptive, not a prescriptive approach to language. It analyses samples of authentic language and describes how speakers and writers use language for communication. It views language as a *resource* for social interaction, not as a set of rules. SFL views language as a semiotic system and claims that language cannot be studied without reference to meaning. Any use of language is motivated by a purpose. An essential concept of the theory is that each time language is used, in whatever situation, the user is making *choices*. These choices are essentially choices about *meaning* but they are expressed through choices from within the systems of formal linguistic features made available by the language. SFL takes a modified social constructivist view of language, claiming not only that we use language to construct reality, but also that language is socially formed: that is, there is a dialectical relationship between society and language. Language is seen as creating, and being created by, social identities, social relations and systems of knowledge and beliefs. One final point which is important to mention in the present context is that SFL has also been increasingly used as a pedagogical grammar, both in the EFL/ESL fields and elsewhere, where the development of critical literacy is increasingly being viewed as a necessary educational goal.

The foremost exponent of SFL is the English linguist Michael Halliday and it is upon his standard model (Halliday 1994; Eggins 1994), outlined in Figure 1, that I have based my own work. The essential claim of Halliday's theory is that each level in this model of language and context is 'realized' in choices made at the level below it in predictable and systematic ways. This so-called 'realization rela-

C O N T E X T	Context of Culture	Ideology		
		Genre		
	Context of Situation	Register		
		Field	Mode	Tenor
T E X T	Discourse — Semantic Level	Experiential Meaning <i>'how the writer discovers what is going on'</i>	Textual Meaning <i>'how the writer organizes the content of the text'</i>	Interpersonal Meaning <i>'how the writer relates to others in the register, and subject'</i>
	Lexicon Grammar Level	Transitivity System • Participants • Processes • Circumstances	Thematic System • Theme & Rheme (given & new information)	Mood System • Mood • Modality (degree of probability or obligation) • Personal pronouns
	Expression	Graphology / Phonology		

Figure 1. A Hallidayan model of Language as Social Semiotic.
(Based on Egins 1994, 113)

relationship' extends all the way from the most abstract levels of context (ideology) down to the most concrete levels of spoken sounds and marks on the page. This realization relationship can be read in both a 'downward', predictive direction and in an 'upward', deductive direction. From the point of view of Critical Discourse Analysis this is important because it means that we can analyse formal features of texts in an 'upwards' direction to recover aspects of the ideologies that the texts contain. As shown on the diagram, Halliday's model divides context into Context of Culture and Context of Situation. The Context of Culture itself has two levels. At the most abstract level there is Ideology. Below Ideology is Genre. Ideology is taken here to refer not just to political ideology but to the whole set of beliefs, ideas and values that make up a person's or a society's world-view. Genre here means the culturally-appropriate, step-by-step structure for carrying out any particular goal-oriented activity. The Context of Situation is defined in terms of Register. Register has three variables: Field, Mode and Tenor. Field refers to the topic, or what the language is being used to talk about, Mode refers to the role that language is playing in the social interaction, and Tenor refers to the role relationships

between interactants.

Moving down now from context to text, texts are viewed in Halliday's model as having three principal levels of organization. The highest level is called the Discourse-Semantic level. The unit of analysis at this level is the text as a whole. This level is concerned with the cohesion of the text (the discourse aspect) and the meaning of the text (the semantic aspect). Halliday claims that all uses of language simultaneously fulfill three semantic functions: the Experiential function, the Textual function and the Interpersonal function. The Experiential function is about relating our experience of the world, the Textual function is about organizing the information of the text, and the Interpersonal function is about creating interpersonal relationships between text producers and text interpreters. These functions realize, respectively, the Field, Mode, and Tenor aspects of the Register. The three functions at the Discourse-Semantic level are themselves realized at the level below, the Lexico-Grammar Level, by, respectively, choices in the Transitivity, Theme and Mood systems of the language. The unit of analysis at the Lexico-Grammar level is the clause. The Transitivity system concerns the Processes, Participants and Circumstances described in the text: it asks 'Who does what to whom, when, where and how?'. The Theme system involves the patterns of thematic foregrounding and continuity in the text. It asks 'How is the content of the text organized?' The Mood concerns two interconnected sub-systems: (a) the Clause Structure (declarative, interrogative, imperative) and (b) the patterns of Modality (degrees of probability and obligation). This system asks 'What is the writer's attitude to himself, the reader, and the subject?'. Finally, the choices made at the lexico-grammatical level are realized by choices at the level of phonology and graphology.

3. What is Critical Discourse Analysis (CDA)?

CDA is a practically-oriented form of discourse analysis aimed at addressing social problems. It seeks not merely to describe language but also to offer critical linguistic resources to those wishing to resist various forms of power. Critical Discourse Analysis has developed out of the contemporary 'linguistic turn' in social theory, which has resulted in language being assigned a more central role within social phenomena. CDA is a form of discourse analysis which uses SFL to study how formal linguistic features of text, such as vocabulary and grammar, are related to social power. The relationship between text and power is mediated by ideology. People are often unaware of this ideological mediation of power in language. There-

fore, the goal of CDA may be seen as to uncover the ideological assumptions that are hidden within texts. One of the most influential practitioners of CDA is Norman Fairclough, and it is his model of language as discourse (for a very clear overview see Fairclough 1989) upon which I have based my own approach.

4. How can SFL and CDA help us to study environmental issues?

Because of SFL's social constructivist conception of language, and CDA's practical-orientation to addressing social problems, together they have been used in many spheres of social struggle. Although there has not, as yet, been much CDA work published in this area (but see Halliday 1992), many environmental issues involve power struggles between opposing groups, and these struggles frequently take place in, and over, language. SFL and CDA can help us become more systematically and critically aware of the language in which environmental matters are discussed. Such an awareness can help us understand the ideological presuppositions of environmental texts.

5. What role can SFL and CDA play in teaching eco-literacy?

As an English teacher in a Japanese university, and as somebody who is concerned about the state of the environment, I am interested in developing new ways of teaching about environmental issues. More generally, I am interested in developing students' ability to think critically about the texts they study. People cannot become effective citizens in a democratic society if their education does not help them develop a critical consciousness of key issues within their natural and social environment. Critical reading involves challenging not just the propositional content of texts but also their ideological content. A language education which focuses merely on training in language skills, without a critical component, is, I believe, inadequate for our students. Because SFL provides a critical metalanguage for thinking about language, it can facilitate critical analysis. In the present case, SFL and CDA can play an important role in helping students to think systematically and critically about environmental texts and to resist and even challenge the status quo. This is what is meant by the term eco-literacy. Although Halliday's model of language and Fairclough's methodology of CDA are both rather complex, my experience of using a simplified version of them has persuaded me that they can help us and our students to gain a more critical understanding of environmental texts.

6. Texts

For the purpose of demonstrating how CDA can be applied to environmental discourse, I have selected two texts which are diametrically opposed to each other, both with respect to their accounts of the event which is their immediate propositional focus, but also in their values and beliefs about the environment. This means that, for many readers, particularly native-speakers of English familiar with the whaling issue, the ideological differences will be so self-evidently present in the texts that the idea of using such a rigorous analytical tool as SFL might suggest a parallel involving sledgehammers and nuts. However, the advantage of using such markedly different texts for teaching purposes is that they throw such differences into sharp relief and thus provide a suitable and necessary training for students before they move on to analyse more subtly nuanced texts such as newspaper articles. More generally, SFL is valuable as a form of estrangement device that forces us to think more systematically about the ideology which, as Antonio Gramsci pointed out, underlies the common-sense taken-for-granted surface of everyday texts.

The two texts which I shall analyse are reproduced below. Apart from the addition of sentence numbers to facilitate reference, the two texts are written as they appeared on the websites, with the original irregularities of spelling and punctuation uncorrected. However, their meaning will undoubtedly have been changed somewhat by loss of certain aspects of their semiotic context. For example, both texts were displayed on the web-page together with colour photographs and associated captions which, both sides claimed, showed the damage to their own side's ships and demonstrated that such damage could only be consistent with their own account of the collision. The texts also contained some hyperlinked items (underlined) to other parts of the sites relating to the disputed legality of the Japanese activities and the letters that both sides exchanged as a result of the collision. Given SFL's emphasis on viewing text in context, these are not trivial differences, and readers may wish to visit the original pages at the URL addresses listed in the bibliography.

Greenpeace Harrassment

1. Japan's Antarctic Research Programme, legally authorized by [Article VIII](#) of the International Convention for the Regulation of Whaling, has been continually subject to harassment and obstruction by Greenpeace.

2. On December 21, 1999, while harassing the Japanese whale research operations in the Antarctic, the Greenpeace vessel Arctic Sunrise rammed the stern section of the Nisshin Maru, in callus

disregard of the life or safety of the scientists and seamen aboard. 3. Greenpeace, recently refused classification as a charity by the Canadian government because it does not operate in the public interest, again demonstrated that it will stop at nothing to create the publicity it needs to support incessant fund-raising campaigns that bring in over \$100 million a year.

4. Although Greenpeace claims to be a peaceful, non-violent organization, its actions belie its words. 5. This is the second time a Greenpeace vessel has rammed a Japanese research vessel in the Antarctic. 6. This time, it tried to make it appear that the ramming was done by the Japanese vessel and published the following cover-up “communiqué” on its web-site.

7. “14:20 - The Nisshin-maru has rammed the M/V Arctic Sunrise. 8. Sunrise captain Arne Sorensen confirmed that the Nisshin-maru rammed the Greenpeace ship while the Nisshin-maru was making an illegal overtaking manoeuvre (SIC). 9. It hit the Sunrise on the portside near the bow.”

10. However, as can be seen in the photos, the Japanese vessel was damaged near its stern on the starboard side. 12. If it had rammed the Greenpeace vessel while overtaking it from behind, damage would be at or near the bow, while the M/V Arctic Sunrise would most likely have suffered damage at the stern or amidships. 13. The damage pattern on the Nisshin Maru shows conclusively that it was caused by a vessel striking it from behind.

14. Greenpeace freely uses lies, distortions and half-truths in support of its fund raising goals. 15. And nowhere are these tools more evident than in their anti-whaling campaigns. 16. They create fears of extinction where no threats exist. 17. They untruthfully label Japan’s Antarctic whale research program illegal when they know that the program is perfectly legal in terms of the international whaling convention, the UN Convention on the Law of the Sea and all other international legal compacts.

18. On December 20, 1999, Greenpeace commenced its latest effort to harass, obstruct and interfere with Japan’s whale research program in the Antarctic. 19. The Institute of Cetacean Research, in an effort to persuade Greenpeace to stop their vicious slander and extremely hazardous and life-threatening assaults on the Japanese research vessels, engaged in the following exchange of letters with Greenpeace Executive Director Thilo Bode

Rammed

1. At 2:16 p.m. today the Greenpeace ship M/V Arctic Sunrise was rammed by the Nisshin-maru, the mother ship of Japan’s whaling fleet in the Southern Ocean. 2. Crew member Andrew Davies filled this story from the Sunrise.

3. We spent the morning making adjustments to the inflatable nicknamed “the Grey Whale.” 4. We had to pull it out of the action on Monday because of some mechanical difficulties. 5. These boats require lots of maintenance, especially when you use them on the high seas. 6. While we were at it, we took the opportunity to install a windshield on the inflatable to give the crew a little cover from the whaling fleet’s relentless fire hoses.

7. Once the Grey Whale was ready, we were able to deploy our two fastest inflatables by 1:30. 8. The small manoeuvrable boats were soon off the stern of the Nisshin-maru ready to shut down the illegal whaling operation. 9. The idea was to stay between the factory ship, and any catcher boats

that arrived with whales for butchering and non-violently prevent a transfer. 10. The Arctic Sunrise was close by.

11. The Nisshin-maru then began to overtake the Sunrise on the port side. Soon she was along side us and very close (less than 25 meters). 12. The crew of the Arctic Sunrise maintained its course — as we are obliged to in this situation under International Maritime Organization (IMO) regulations. (1)

13. The 129 metre Nisshin-maru suddenly turned towards our bow and then veered away. 14. Some of the crew saw what was coming and headed for the shelter of the bridge. 15. With a loud crunch, the Nisshin-maru fish-tailed into the Arctic Sunrise near the bow.

16. On-board campaigner John Bowler was on the bridge when the Nisshin-maru hit. 17. “It threw me and I got a good bang. 18. Nothing too serious but like a good punch to the ribs. 19. I know the rest of the crew was definitely jostled around a bit.”

20. During the incident Phil was shooting some video for the folks back home (our cameraman and videographer were on the inflatables). 21. On impact, Phil’s camera went flying, but his video clearly shows Japan’s factory ship over-taking the Arctic Sunrise in an unsafe manner.

22. Basic navigational law states that “...any vessel overtaking any other shall keep out of the way of the vessel being overtaken.” (2) 23. These laws are set forth by and any sailor worth his or her salt knows them inside and out. 24. For some reason, the pilot of the Nisshin-maru refused to adhere to universally understood maritime practice.

25. Given the deliberate nature of this manoeuvre, not to mention yesterday’s attack on our helicopter with fire hoses, the obvious conclusion is that the Nisshin-maru deliberately rammed our ship in an attempt to intimidate or disable us.

26. Intimidation is one thing, but when you are thousands of miles from the nearest safe harbour and the rough seas regularly hover around the freezing point, trying to “brush back” another ship is downright dangerous.

27. “I doubt that the captain of the Nisshin-maru really thought through the possible consequences of his actions,” said Sunrise captain Arne Sorensen. 28. “This behavior was completely irresponsible.”

29. By 2:40 we had managed to get the Nisshin-maru to answer our repeated hails by radio, and at their request, had brought our Japanese translator (Namhee) to the bridge. 30. Arne had Namhee repeat that Greenpeace is a peaceful organization and that we will do nothing to harm or endanger the whalers. 31. When asked, the captain of the Nisshin-maru refused to promise us the same. 32. Meanwhile, Thilo Bode, director of Greenpeace International was preparing a letter of protest to the Institute for Cetacean Research, the Japanese organization that oversees the whaling program.

33. Today the whaling fleet, which is bankrolled by the Japanese government, showed that they have no more concern for marine navigation laws than they do for the Law of the Sea, which they are violating by whaling in the Southern Ocean Sanctuary. 34. Fortunately, no one was seriously hurt, and the damage to the Arctic Sunrise was all above the waterline.

35. Inspections continue, but the chief engineer is sure the hull is remains sound. 36. We did not see any real damage to the Nisshin-maru, except maybe a few small dents. 37. Hopefully, everyone over there is OK.

38. The rest of today will be taken up with repairs to the Arctic Sunrise — although we have no intention of letting the whaling fleet escape. 39. The Arctic Sunrise is a tough ship with a good crew. 40. Today's incident has done nothing to damage our resolve. 41. On the contrary, we are more determined than ever to stop Japan's illegal whaling program. 42. And come tomorrow that is exactly what we are going to do.

7. Textual Analysis

To provide sufficient scope for the demonstration of a CDA analysis of the texts I have organized this section as a response to the following very general question: 'How can the similarities and differences between the two texts at the level of lexico-grammar be related to the register variables of Field, Mode and Tenor and, beyond that, to Genre and Ideology?' Because of space limitations, I shall present the results of the analysis in summary form, but for reference purposes the full clause-by-clause analyses of Mood, Transitivity and Theme are given in the Appendix. In this section, some of the more salient findings from these analyses together with findings from the analyses of Register and Genre will be summarized. Throughout the attempt will be made to show how context and text are linked and how choices at lower levels of the model serve to realize higher level meanings. Quotations from the Greenpeace and ICR texts will be referred to by the abbreviation GP or IC respectively, followed by the number of the sentence from which they are taken. Where added, emphasis is shown in italics.

I shall begin my analysis at the lexico-grammar level with the choice of Mood system in the clauses of the two texts. As we have seen, these choices realize the Interpersonal meaning, that is, the relationship between writer and readers, which is encoded in the text. Regarding clause structure, in both texts, all clauses are Full Declarative: there are no questions or commands and no minor or abandoned clauses. This is the typical pattern for written (as opposed to spoken) texts, where there is no possibility for feedback between writer and reader. From this shared tendency to use declarative clauses we can deduce that both texts share a common focus on giving information. Bearing in mind SFL's claim that all language use is motivated, this implies that it is information that the writer thinks the reader lacks, but wants or needs, or ought to have.

In both texts, the type of Modality involved in giving information is mainly categorical and positive: things either *are* or they *are not* as the writers describe them. In this way, both texts claim to have certain knowledge and authority about their topic. Neither text utilizes very much Verbal Modality, and the only significant cat-

egory of Adjunctival modality is Intensification, with phrases such as. ‘The damage pattern on the Nisshin Maru shows *conclusively* that it was caused by a vessel striking it from behind.’ (IC13) and. “‘This behavior was *completely* irresponsible.’” (GP28). However, the paradoxical fact about Modality is that the more we say something is certain, the less certain it is. We can see this at a few key points in the texts such as these where certainty is emphasized. In the GP text we also find, ‘his video *clearly* shows Japan’s factory ship over-taking the Arctic Sunrise in an unsafe manner’ (21) and ‘the *obvious* conclusion is that the Nisshin-Maru deliberately rammed our ship’ (25). In the ICR text we find, ‘the damage pattern on the Nisshin Maru shows *conclusively* that it was caused by a vessel striking it from behind’ (13). Although in all of these the verb is categorical and positive (in the first sentence, for example, ‘shows’ rather than ‘might show’ or ‘could show’), the use of words like ‘clearly’, ‘obvious’, and ‘conclusively’ indicate that, in fact, these statements are the focus of argument. From this we can deduce that the texts are not merely giving information, but are attempting to persuade us of their representation of reality. This leads us to a consideration of the transitivity system.

Regarding the Processes of the transitivity system themselves, in both texts, the commonest type expressed in the clauses is the Material process, the process of doing things. From this we can deduce that both texts are mainly concerned with describing actions and events. In the ICR text, the key event is described in the following sentence: ‘On December 21, 1999, while harrassing the Japanese whale research operations in the Antarctic, the Greenpeace vessel Arctic Sunrise *rammed* the stern section of the Nisshin Maru, in callus disregard of the life or safety of the scientists and seamen aboard.’ (2). On the other hand, in the Greenpeace text, this key event is described as follows: ‘With a loud crunch, the Nisshin-Maru *fish-tailed* into the Arctic Sunrise near the bow.’ (15). The ICR text accuses the Arctic Sunrise of causing the collision, whereas the Greenpeace text accuses the Nisshin-maru. The first thing to notice is that neither text describes the event with a neutral word like ‘collide’. The texts’ choices of verbs for this Material process is highly significant. The ICR text uses two common words ‘rammed’ and ‘striking’ to describe what the Arctic Sunrise did. The Greenpeace text uses ‘rammed’, ‘hit’, but also used two specialized words, ‘fish-tailed’, and ‘brush-back’. This variety of terms to describe the same action is an example of what is called ‘overlexicalization’. Overlexicalization often indicates areas of intense preoccupation in a text, and hence in the ideology of the writer.

In terms of Transitivity participants, the ICR text's main actors are 'Japan's Antarctic Research Programme', 'the Nisshin Maru', 'Greenpeace' and 'the Arctic Sunrise'. The Greenpeace text's main participants are 'We' (the crew of the Arctic Sunrise) and 'the Nisshin Maru'. The actions of the crew of the Arctic Sunrise are described in the Greenpeace text as being peaceful and reasonable, for example, as trying to 'non-violently prevent a transfer' (of whales), whereas the Nisshin Maru is described critically, for example as overtaking 'in an unsafe manner' and of 'attacking' the Greenpeace helicopter with its 'relentless fire hoses'. In the ICR text we find the opposite: Greenpeace's actions are associated with words such as 'harassment', 'hazardous' and 'life-threatening' while the Japanese Arctic Research Programme is 'legally authorized' and passively 'subject to harassment and obstruction by Greenpeace'. Finally, regarding the third part of the Transitivity system, Circumstance, both texts make considerable use of Location (Spatial and Temporal) Circumstantials, which again emphasizes the concern that both texts have for pinning down their accounts of what happened in time and place.

One final aspect of the lexico-grammatical characterization of these texts which must be mentioned is the significance of nominalization. Nominalization is a way of representing a process as a noun, as if it were an entity, which has the effect of obfuscating agency and causality, and the time at which processes take place. Some nominalizations may be regarded as neutral, others as manipulative. As examples of the latter, in the GP text we find 'illegal whaling operation' (8), while the ICR text has 'Harassment' in its title.

Turning now to the Thematic structure of the clauses, which realizes the Textual meaning of the text and concerns how the writers organize the content of their texts, we may begin by noting that the three-dimensional semantic structure of the language finds its counterpart in the three elements of theme: experiential (topical), interpersonal and textual. Other significant points to keep in mind when analysing theme are the degree of markedness and the frequency of dependent clauses acting as theme. In this case, both texts make considerable use of textual themes to create cohesion, and both have similar proportions of marked themes and dependent themes. However, they differ in terms of interpersonal theme. Whereas the GP text uses Interpersonal themes ('hopefully' (34) and 'fortunately' (37)), the ICR text does not. This non-Thematization of modality, combined with the avoidance of interactive Mood classes, is one means by which the ICR text realizes its Tenor of authority and distance.

The lexico-grammatical description of these texts permits us to show in detail how they are alike and different, and the effect of the different choices made by the writers. For a full analysis of these texts however, it is necessary to complement the lexico-grammar analysis with a consideration of their discourse-semantic features. The analysis of the discourse-semantic level involves looking at how texts achieve the quality of 'texture', or semantic unity, which is what distinguishes text from incoherent random sentences. Texture is achieved through the discursal patterns of cohesion, which include three kinds of textual relations: relations of reference (about participants), lexis (about topic) and conjunction (about the logical coherence of the text).

In terms of the reference relations in the two texts, both create chains of related words throughout their length, predictably focussing on the names of the two ships, the organizations and their personnel. However, whereas the ICR text seldom refers to itself other than as a passive victim of harassment, the reference relations in the Greenpeace text foreground the agency of the individual crew members of the Arctic Sunrise using the personal pronoun 'we' as subject of clauses. Although this is an 'exclusive' use of *we*, the referential chain which it forms throughout the text helps create the impression that the writer is including not merely the crew of the ship, but Greenpeace as an organization and its supporters. Since many of the visitors to the Greenpeace International website are supporters of Greenpeace, there is a sense in which in the particular context of culture, the *we* can refer inclusively to both writer and readers. Although there is an emphasis on activity, it is seen in somewhat passive terms ('prevent a transfer' (9)).

While reference relations can involve items such as pronouns, lexical relations involve items that encode lexical content. In the first and third sentences of the ICR text there is a strong lexical relation established between the relationship of the ICR to legality and political or legal authority which is paralleled with a representation of Greenpeace as illegal and not accepted by authority. Viewing the two texts as forming part of each other's intertextual context, there is a similar parallel between the ICR's concentration on Greenpeace's finances (IC3, 14) and Greenpeace's 'Today the whaling fleet, which is bankrolled by the Japanese government, showed that they have no more concern for marine navigation laws than they do for the Law of the Sea, which they are violating by whaling in the Southern Ocean Sanctuary.' (33).

On the basis of an analysis of the lexico-grammatical and discourse-semantic

evidence of the texts, we are able to draw up descriptions of the register (context of situation) of the two texts in terms of Field, Tenor and Mode. First, field, which is realized by features of transitivity and lexical relations. Both texts share some aspects of field insofar as they are both concerned with what happened when the two ships collided. However, whereas the Greenpeace text is more focussed on the activities of individuals, the ICR text focuses more on non-sentient actors and organizations. Second, mode, which is realized by Theme and also reference and conjunction relations. The mode of the ICR text can be straightforwardly described as written-to-be-read, conforming closely to an official style of writing which maintains a high degree of both interpersonal and experiential distance, although this is occasionally subverted by the authors vehement criticism of Greenpeace's actions. The mode of the Greenpeace text likewise clearly reflects its written character, but includes features of spoken discourse, most obviously in the quotations from the captain, and more generally of less formal lexical items. Finally, tenor, which is realized through Mood. The ICR text, with its declarative Mood, categorical modality and abstract rather than concrete interest in the collision issue, has a formal tenor suggesting an unequal power relationship between bureaucratic authority and public. The Greenpeace text shares some features with ICR, such as the declarative Mood, but there is greater modality, suggesting the intrusion of the writer's personal feelings and opinions into the text, and his interest in the concrete details of what happened. This is most clearly shown in the use of the 'we' pronoun and even, at one point, 'you' (5) which aims to construct a non-authoritarian relationship of solidarity.

Having assembled a characterization of the texts' context of situation we can move further up the model to consider the context of culture, which involves the analysis of genre. Based on the evidence provided by the lexico-grammatical and discourse-semantic analyses, we can delineate a generic structure for each text. First, we may describe the ICR text's genre as a combination of Accident Report and Counter-Propaganda. The Generic Structure (with sentence numbers in parentheses) is as follows: (1) Statement of Problem; (2–3) Elaboration 1; (3) Denigration of Opposition, (4–6) Elaboration 2; (7–9) Opposing Argument (in quotation); (10–13) Refutation; (14–17) Assessment; (18–19) Alleviating Reaction. While it would be quite simple to roughly characterize the genre without doing a CDA analysis, such analysis does indicate how changes from one stage to the other correspond to changes at the textual and semantic levels. As for the Greenpeace text, the genre

may be characterized as Daily Campaign Report/Propaganda and the generic structure as: (1) Statement of Problem; (2–10) Setting Scene; (11–15) Reporting Problem; (16–21) Elaboration/Corroboration; (22–24) Denigration of Opposition; (25–28) Assessment 1; (29–32) Alleviating Reaction; (33–40) Assessment 2; (41–42) Outlook.

Once the texts have been assigned to a generic description, we are ready to integrate the texts into their ideological context, and to show how ideology enters and operates through the textual features that have been described. The impact of ideology on field relates to how the text encodes such experiential meanings as who initiates action, what those actions are, and who responds. In the ICR text, the ideology of the writer is felt in the way Greenpeace is labelled as the aggressor, and the ICR's vessels as passive victims. Conversely, the Greenpeace text writer's ideology is clearly that what the Japanese are doing is more than simply illegal, but immoral too. The influence of ideology on the tenor of the two texts concern such things as the way that the writer regards the reader. The writer of the ICR text regards the reader (who could potentially be anyone with access to the Internet) in comparatively formal, distant terms befitting a public official, whereas the Greenpeace writer adopts a less authoritarian style in keeping with the voluntarist and populist ethos of environmental campaigning. As for mode, the influence of ideology concerns such textual meanings as the relationship between what information can be presupposed and what cannot, and the distance between writer and reader and writer and topic. Both texts make strong epistemological presuppositions regarding the cause of the accident, but although their claims are categorical, as we have seen, in the use of modality to emphasize their points, they reveal that they cannot reasonably expect all their readers to share those presuppositions. Finally, at the level of genre, ideology has an influence by determining which genre will be chosen for the text. The ICR text chooses a distant, 'objective' third person genre (the author is not identified) whereas the Greenpeace text selects a more informal first person narrative genre.

8. Conclusion

By itself CDA will not tell us which of the two organizations is telling the truth, who rammed who, or whether hunting whales is an illegal or unethical activity. Perhaps in these postmodern but decidedly ideological times, notions of truth and objectivity are somewhat suspect anyway, but what CDA can do is help us to think

more critically and systematically about the language in which environmental issues are talked about. For reasons which are themselves ideological, most people have not been educated to identify ideology in text, but rather to read texts as natural, inevitable representations of reality. I believe that SFL and CDA provide a useful, systematic way for us and our students to begin raising our awareness of the ideology of environmental discourse texts. And I believe that this is an important thing to do because language not only reflects and records but also shapes, distorts and even creates realities, both cultural and natural.

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Texts

Greenpeace harassment is taken from the website of the Institute for Cetacean Research.

URL: <http://www.whalescience.org/collision0.html> (visited 04/09/2000).

Rammed is taken from Greenpeace International's website.

Appendix: analyses of the texts

Each text has been analysed twice, once for Mood and once for Transitivity and Theme, according to the Keys presented below. Texts have been analysed first into numbered clauses, with embedded clauses [[given in double brackets]]. Embedded clauses have been analysed for Mood and Transitivity but not for Theme. Inserted clauses, marked by three dots ... at beginning and end, have been placed at the end of the clause or clause complex wherein they were inserted. An asterisk * within a clause indicates the place from which an inserted clause has been removed. Double slashed lines // indicate clause boundaries within embedded clauses. Misspellings in the original texts have not been corrected.

A1. Mood Analysis

Key

S=Subject, F=Finite, Fn=Negative finite, Fms=Modalized finite, Fml=Modulated finite

P=Predicator, Pml=Modulated Predicator, Pms=Modalized Predicator, F/P=fused Finite and Predicator

C=Complement, Ci=Intensive Complement

A=Adjunct, Ac=Circumstantial Adjunct, Ap=Polarity Adjunct, Aj=Conjunctive Adjunct, Ao=Comment Adjunct, Am=Mood Adjunct, (-m=minimization, -i=intensification, -u=usuality, -p=probability, -o=obviousness)

Inserted elements are shown enclosed in <angular brackets>

MOOD element of ranking (non-embedded) clauses is shown in **bold**

Greenpeace Harrassment

1. **Japan's Antarctic Research Programme (S)** * **has (F)** been <continually (Am-u)> subject (P) to harassment and obstruction (C) by Greenpeace (Ac). 2. ... legally (Ac) authorized (P) by Article VIII of the International Convention for the Regulation of Whaling (Ac), ...
3. On December 21, 1999 (Ac), * **the Greenpeace vessel Arctic Sunrise (S)** **rammed (F/P)** the stern section of the Nisshin Maru (C), in callus disregard of the life or safety of the scientists and seamen aboard (Ac). 4. ... while (Aj) harassing (P) the Japanese whale research operations in the Antarctic (C), ... 5. **Greenpeace (S)**, * again (Ac) **demonstrated (F/P)** 6. that (Aj) **it (S) will (F)** stop at nothing to create (P) the publicity [[it (S) needs (F) to support (P) incessant fund-raising campaigns [[that (S) bring in (F/P) over \$100 million (C) a year (Ac)]] (C)] (C)]. 7. ... recently (Ac) refused (P) classification (C) as a charity (Ac) by the Canadian government (Ac) 8. because (Aj) **it (S) does not (Fn)** operate (P) in the public interest (Ac), ...
9. Although (Aj) **Greenpeace (S) claims (F/P)** 10. to be (P) a peaceful, non-violent organization

(C), 11. **its actions (S)** belie (F/P) its words (C). 12. **This (S) is (F)** the second time [[a Greenpeace vessel (S) has (F) rammed (P) a Japanese research vessel (C) in the Antarctic (Ac)]] (Ci). 13. This time (Ac), **it (S) tried (F)** to make it appear (P) 14. that (Aj) **the ramming (S) was (F)** done (P) by the Japanese vessel (Ac) 15. and (Aj) **published (F/P)** the following cover-up “communiqué?” (C) on its web-site (Ac).

16. “14:20 - (C) 17. **The Nisshin-maru (S) has (F)** rammed (F) the M/V Arctic Sunrise (C). 18. **Sunrise captain Arne Sorensen (S) confirmed (F/P)** 19. that (Aj) **the Nisshin-maru (S) rammed (F/P)** the Greenpeace ship 20. while (Aj) **the Nisshin-maru (S) was (F)** making (P) an illegal overtaking manoeuvre (C) (SIC) (Ao). 21. **It (S) hit (F/P)** the Sunrise (C) on the portside (Ac) near the bow (Ac).”

22. However (Aj), * **the Japanese vessel (S) was (F)** damaged (P) near its stern (Ac) on the starboard side (Ac). 23. ... as (Aj) **can (Fms)** be seen (P) in the photos (Ac), ... 24. If (Aj) **it (S) had (F)** rammed (P) the Greenpeace vessel (C) 25. while (Aj) overtaking (P) it (C) from behind (Ac), 26. **damage (S) would (Fms)** be (P) at or near the bow (Ac), 27. while (Aj) **the M/V Arctic Sunrise (S) would (Fms)** <most likely (Am-p)> have suffered (P) damage (C) at the stern or amidships (Ac). 28. **The damage pattern on the Nisshin Maru (S) shows (F/P)** conclusively (Am-i) 29. that (Aj) **it (S) was (F)** caused (P) by a vessel [[striking (P) it (C) from behind (Ac).]] (Ac)

30. **Greenpeace (S)** freely (Am-i) **uses (F/P)** lies, distortions and half-truths (C) in support of its fund raising goals (Ac). 31. And (Aj) nowhere (Ac) **are (F) these tools (S)** more evident (Ci) 32. than (Aj) in their anti-whaling campaigns (Ac). 33. **They (S) create (F/P)** fears of extinction (C) 34. where (Aj) **no threats (S) exist (F/P)**. 35. They (S) untruthfully (Am-i) **label (F/P)** Japan’s Antarctic whale research program (C) illegal (Ci) 36. when (Aj) **they (S) know (F/P)** 37. that (Aj) **the program (S) is (F)** perfectly legal (C) in terms of the international whaling convention, the UN Convention on the Law of the Sea and all other international legal compacts (Ac).

38. On December 20, 1999 (Ac), **Greenpeace (S) commenced (F/P)** its latest effort [[to harass (P), // obstruct (P) // and (Aj) interfere with (P) Japan’s whale research program (C) in the Antarctic (Ac).]] (C) 39. **The Institute of Cetacean Research (S)**, in an effort [[to persuade (P) Greenpeace (C) // to stop (P) their vicious slander and extremely hazardous and life-threatening assaults on the Japanese research vessels (C),]] (Ac) **engaged in (F/P)** the following exchange of letters (C) with Greenpeace Executive Director Thilo Bode (Ac)

Rammed

1. At 2:16 p.m. today (Ac) **the Greenpeace ship M/V Arctic Sunrise (S) was (F)** rammed (P) by the Nisshin-maru, the mother ship of Japan’s whaling fleet in the Southern Ocean (Ac). 2. **Crew member Andrew Davies (S) filled (F/P)** this story (C) from the Sunrise (Ac).

3. **We (S) spent (F/P)** the morning (C) 4. making (P) adjustments (C) to the inflatable [[nicknamed (P) “the Grey Whale. (C)”]] (C) 5. **We (S) had (Fml)** to pull <it (C)> out (P) of the action (Ac) on Monday (Ac) because of some mechanical difficulties (Ac). 6. **These boats (S) require (F/P)** lots of maintenance (C), 7. especially (Am-u) when (Aj) **you (S) use (F/P)** them (C) on the high seas (Ac). 8. While (Aj) **we (S) were (F)** at (P) it (Ci), 9. **we (S) took (F/P)** the opportunity [[to install (P) a

windshield (C) on the inflatable (Ac) // to give (P) the crew (C) a little cover (C) from the whaling fleet's relentless fire hoses (Ac).]] (C)

10. Once (Aj) **the Grey Whale (S) was (F)** ready (Ci), 11. **we (S) were (F)** able to deploy (P) our two fastest inflatables (C) by 1:30. (Ac) 12. **The small maneuverable boats (S) were (F)** <soon (Ac)> off the stern of the Nisshin-maru (C) 13. ready [[to shut down (P) the illegal whaling operation. (C)]] (C) 14. **The idea (S) was (F)** [[to stay (P) between the factory ship and any catcher boats [[that (S) arrived (F/P) with whales for butchering (Ac)]] (Ac) // and (Aj) non-violently (Ac) prevent (P) a transfer (C).]] (Ci) 15. **The Arctic Sunrise (S) was (F)** close by (Ci).

16. **The Nisshin-maru (S)** then (Aj) **began (F)** to overtake (P) the Sunrise (C) on the port side (Ac). 17. Soon (Ac) **she (S) was (F)** along side us and very close (less than 25 meters) (Ci). 18. **The crew of the Arctic Sunrise (S) maintained (F/P)** its course (C) 19. — as (Aj) **we (S) are (F)** obliged to (Pml) in this situation (Ac) under International Maritime Organization (IMO) regulations (Ac). (L) 20. **The 129 metre Nisshin-maru (S)** suddenly (Ac) **turned (F/P)** towards our bow (Ac) 21. and then (Aj) **veered (F/P)** away (Ac). 22. **Some of the crew (S) saw (F/P)** [[what (S) was (F) coming (P)]] (C) 23. and (Aj) **headed for (F)** the shelter of the bridge (C). 24. With a loud crunch (Ac), the **Nisshin-maru (S) fish-tailed (F/P)** into the Arctic Sunrise (Ac) near the bow (Ac).

25. **On-board campaigner John Bowler (S) was (F)** on the bridge (Ci) 26. when (Aj) **the Nisshin-maru (S) hit (F/P)**. 27. **“It (S) threw (F/P)** me (C) 28. and (Aj) **I (S) got (F/P)** a good bang (C). 29. Nothing too serious (Ci) 30. but (Aj) like a good punch to the ribs. (Ci) 31. **I (S) know (F/P)** 32. **the rest of the crew (S) was (F)** <definitely (Am-p)> jostled around (P) a bit (Am-m).”

33. During the incident (Ac) **Phil (S) was (F)** shooting (P) some video (C) for the folks back home (Ac) 34. **(our cameraman and videographer (S) were (F)** on the inflatables (Ci)). 35. On impact (Ac), **Phil's camera (S) went (F)** flying (P), 36. but (Aj) **his video (S)** clearly (Am-o) **shows (F/P)** 37. **Japan's factory ship (S)** over-taking (P) the Arctic Sunrise (C) in an unsafe manner (Ac).

38. **Basic navigational law (S) states (F/P)** 39. that (Aj) “...any vessel [[overtaking (P) any other (C)]] (S) **shall (Fml)** keep out (P) of the way of the vessel [[being overtaken. (P)]] (Ac)”(2) 40. **These laws (S) are (F)** set forth (P) by the IMO (Ac) 41. and (Aj) **any sailor [[worth his or her salt (Ci)]] (S) knows (F/P)** them (C) inside and out (Ac). 42. For some reason (Ac), **the pilot of the Nisshin-maru (S) refused (F)** to adhere (P) to universally understood maritime practice (Ac).

43. Given (P) [[the deliberate nature of this manoeuvre not to mention yesterday's attack on our helicopter with fire hoses,]] (C) 44. **the obvious conclusion (S) is (F)** [[that (Aj) the Nisshin-maru (S) deliberately (Ac) rammed (F/P) our ship (C) in an attempt [[to intimidate (P) // or (Aj) disable (P) us (C).]] (Ac)]] (Ci)

45. **Intimidation (S) is (F)** one thing (P), 46. but (Aj) when (Aj) **you (S) are (F)** thousands of miles from the nearest safe harbour (Ci) 47. and (Aj) **the rough seas (S)** regularly (Am-u) **hover (F/P)** around the freezing point (Ac), 48. [[trying to “brush back” (P) another ship (C)]] (S) **is (F)** down-right dangerous (Ci).

49. **“I (S) doubt (F/P)** 50. that (Aj) **the captain of the Nisshin-maru (S)** really (Am-i) **thought through (F/P)** the possible consequences of his actions (C),” 51. **said (F/P) Sunrise captain Arne Sorensen (S)**. 52. **“This behavior (S) was (F)** completely (Am-i) irresponsible (Ci).”

53. By 2:40 (Ac) **we (S) had (F)** managed to get (P) 54. **the Nisshin-maru (S)** to answer (P) our

repeated hails by radio (C), 55. and (Aj) at their request (Ac), **had (F)** brought (P) our Japanese translator (Namhee) (C) to the bridge (Ac). 56. **Arne (S) had (F)** Namhee (C) repeat (P) 57. that (Aj) **Greenpeace (S) is (F)** a peaceful organization (Ci) 58. and that (Aj) **we (S) will (F)** do (P) nothing [[to harm (P) or (Aj) endanger (P) the whalers (C).]] (C) 59. When (Aj) asked (P), 60. **the captain of the Nisshin-maru (S) refused (F)** to promise (P) us (C) the same (C). 61. Meanwhile (Aj), **Thilo Bode, director of Greenpeace International (S) was (F)** preparing (P) a letter of protest to the Institute for Cetacean Research, the Japanese organization [[that (S) oversees (F/P) the whaling program (C).]] (C)

62. Today (Ac) **the whaling fleet (S), * showed (F/P)** 63. that (Aj) **they (S) have (F/P)** no more concern (C) for marine navigation laws (Ac) 64. than (Aj) **they (S) do (F/P)** for the Law of the Sea (Ac), 65. which (C) **they (S) are (F)** violating (P) 66. by (Aj) whaling (P) in the Southern Ocean Sanctuary (Ac). 67. ... **which (S) is (F)** bankrolled (P) by the Japanese government (Ac), 68. Fortunately (Am-c), **no one (S) was (F)** seriously (Am-i) hurt (Ci), 69. and (Aj) **the damage to the Arctic Sunrise (S) was (F)** all above the waterline (Ci).

70. **Inspections (S) continue (F/P)**, 71. but (Aj) **the chief engineer (S) is (F)** sure (Ci) 72. **the hull (S) remains (F/P)** sound (Ci). 73. **We (S) did not (Fn) see (P)** any real damage (C) to the Nisshin-maru (Ac), 74. except (Aj) maybe (Am-p) a few small dents (C). 75. Hopefully (Am-c), **everyone over there (S) is (F)** OK (C).

76. **The rest of today (S) will (F)** be taken up (P) with repairs to the Arctic Sunrise (Ac) 77. — although (Aj) **we (S) have (F)** no intention [[of letting (P) // the whaling fleet (C) escape (P)]] (Ci). 78. **The Arctic Sunrise (S) is (F)** a tough ship with a good crew (Ci). 79. **Today's incident (S) has (F)** done (P) nothing [[to damage (P) our resolve (C)]] (C). 80. On the contrary (Ao), **we (S) are (F)** more determined than ever (Ci) 81. to stop (P) Japan's illegal whaling program (C). 82. And (Aj) come tomorrow (Ac) **that (S) is (F)** exactly (Am-i) [[what (C) we (S) are (F) going to do (P).]] (Ci)

A2. Transitivity and Theme Analysis

Key

P=Process, Pm=material, Pme=mental, Pv=verbal, Px=existential, Pc=causative, Pi=intensive, Pcc=circumstantial, Pp=possessive (-a=attributive, -i=identifying)

A=Actor, G=Goal, B=Beneficiary, R=Range, S=Senser, Ph=Phenomenon, Sy=Sayer, Rv=Receiver, Vb=Verbiage, X=Existent, T=Token, V=Value, Cr=Carrier, At=Attribute, Pr=Possessor, Pd=Possessed, Ag=Agent

C=Circumstance, Cx=extent, Cl=location, Cm=manner, Cc=cause, Ca=accompaniment, Co=role, Ct=matter, Cg=Angle

Theme is underlined, Textual Theme is in *italics*, Interpersonal Theme is in CAPITALS, Topical Theme is in **bold**, dependent clause as theme: **whole clause in bold**

Greenpeace Harrassment

1. Japan's Antarctic Research Programme (B) * has been <continually (Cx)> subject (Pm) to ha-

rassment and obstruction (R) by Greenpeace (A). 2. ... **legally** (Cm) authorized (Pm) by Article VIII of the International Convention for the Regulation of Whaling (A), ...

3. **On December 21, 1999** (Cl), * the Greenpeace vessel Arctic Sunrise (A) rammed (Pm) the stern section of the Nisshin Maru (G), in callus disregard of the life or safety of the scientists and seamen aboard (Cm). 4. ... **while harassing** (Pm) the Japanese whale research operations in the Antarctic (G), ... 5. **Greenpeace** (A), * again (Cl) demonstrated (Pm) 6. **that it** (A) will stop at nothing to create (Pm) the publicity [[it (A) needs to support (P) incessant fund-raising campaigns [[that (A) bring in (Pm) over \$100 million (G) a year (Cx)]] (G)]] (G). 7. ... **recently** (Cl) refused (Pm) classification (G) as a charity (Co) by the Canadian government (A) 8. **because** (Cc) **it** (A) does not operate (Pm) in the public interest (Cc), ...

9. **Although Greenpeace (A) claims (Pv)** 10. **to be (Pi-a) a peaceful, non-violent organization (At)**, 11. **its actions (A)** belie (Pm) its words (G). 12. **This (T)** is (Pcc-i) the second time [[a Greenpeace vessel (A) has rammed (Pm) a Japanese research vessel (G) in the Antarctic (Cl)]] (V). 13. **This time (Cl)**, it (A) tried to make it appear (Pm) 14. **that the ramming (R)** was done (Pm) by the Japanese vessel (A) 15. **and published (Pm)** the following cover-up “communiqué (G)?” on its website (Cl).

16. “**14:20 (V)** - 17. **The Nisshin-maru (A)** has rammed (Pm) the M/V Arctic Sunrise (G). 18. **Sunrise captain Arne Sorensen** (Sy) confirmed (Pv) 19. **that the Nisshin-maru (A)** rammed (Pm) the Greenpeace ship (G) 20. **while the Nisshin-maru (A)** was making (Pm) an illegal overtaking manoeuvre (R) (SIC) (Cg). 21. **It (A)** hit (Pm) the Sunrise (G) on the portside (Cl) near the bow (Cl).”

22. **However, * the Japanese vessel (G)** was damaged (Pm) near its stern (Cl) on the starboard side (Cl). 23. ... **as can be seen (Pme) in the photos (Cl)**, ... 24. **If it (A) had rammed (Pm) the Greenpeace vessel (G)** 25. **while overtaking (Pm) it (G) from behind (Cl)**, 26. **damage** (Cr) would be (Pcc-i) at or near the bow (Cl), 27. **while the M/V Arctic Sunrise (A)** would <most likely> have suffered (Pm) damage (G) at the stern or amidships (Cl). 28. **The damage pattern on the Nisshin Maru (A)** shows (Pm) conclusively (Cm) 29. **that it (Pm)** was caused (Pm) by a vessel [[striking (Pm) it (G) from behind (Cl).]] (A)

30. **Greenpeace** (A) freely (Cm) uses (Pm) lies, distortions and half-truths (G) in support of its fund raising goals (Cc). 31. **And nowhere** (Cl) are (Pcc-a) these tools (Cr) more evident (At) 32. **than in their anti-whaling campaigns (Cl)**. 33. **They (A)** create (Pm) fears of extinction (G) 34. **where no threats** (X) exist (Pe). 35. **They (A)** untruthfully (Cm) label (Pm) Japan’s Antarctic whale research program (G) illegal (Co) 36. **when they (S)** know (Pme) 37. **that the program (Cr)** is (Pi-a) perfectly legal (At) in terms of the international whaling convention, the UN Convention on the Law of the Sea and all other international legal compacts (Ct).

38. **On December 20, 1999 (Cl)**, Greenpeace (A) commenced (Pm) its latest effort [[to harass (Pm), // obstruct (Pm) // and interfere with (Pm) Japan’s whale research program (G) in the Antarctic (Cl).]] (R) 39. **The Institute of Cetacean Research (A)**, in an effort [[to persuade (Pv) Greenpeace (Rv) // to stop (Pm) their vicious slander and extremely hazardous and life-threatening assaults on the Japanese research vessels (R).]] (Cc) engaged in (Pm) the following exchange of letters (G) with Greenpeace Executive Director Thilo Bode (Ca)

Rammed

1. **At 2:16 p.m. today (Cl)** the Greenpeace ship M/V Arctic Sunrise (G) was rammed (Pm) by the Nisshin-maru, the mother ship of Japan's whaling fleet in the Southern Ocean (A). 2. **Crew member Andrew Davies (A)** filled (Pm) this story (G) from the Sunrise (Cl).
3. **We (A)** spent (Pm) the morning (R) 4. **making adjustments to (Pm)** the inflatable [[nicknamed "the Grey Whale."]] (G) 5. **We (A)** had to pull <it (G)> out (Pm) of the action (Cl) on Monday (Cl) because of some mechanical difficulties (Cc). 6. **These boats (A)** require (Pm) lots of maintenance (G), 7. **ESPECIALLY when you (A)** use (Pm) them (G) on the high seas (Cl). 8. **While we (A) were at (Pm) it (G)**, 9. **we (A)** took (Pm) the opportunity [[to install (Pm) a windshield (G) on the inflatable (B) // to give (Pm) the crew (B) a little cover (G) from the whaling fleet's relentless fire hoses (Cl).]] (R)
10. **Once the Grey Whale (Cr) was (Pi-a) ready (At)**, 11. **we (A)** were able to deploy (Pm) our two fastest inflatables (G) by 1:30 (Cl). 12. **The small manoeuvrable boats (Cr)** were (Pcc-a) <soon (Cl)> off the stern of the Nisshin-maru (At) 13. ready [[to shut down (Pm) the illegal whaling operation.]] (At) 14. **The idea (T)** was (Pi-i) [[to stay (Pm) between the factory ship and any catcher boats [[that (A) arrived (Pm) with whales for butchering (Ca)]] (Cl) // and non-violently (Cm) prevent (Pm) a transfer (G).]] (V) 15. **The Arctic Sunrise (Cr)** was (Pcc-a) close by (At).
16. **The Nisshin-maru (A)** then began to overtake (Pm) the Sunrise (G) on the port side (Cl). 17. **Soon (Cl) she (Cr)** was (Pcc-a) along side us and very close (less than 25 meters) (At). 18. **The crew of the Arctic Sunrise (A)** maintained (Pm) its course (G) 19. — **as we (A)** are obliged to (Pc) in this situation (Cl) under International Maritime Organization (IMO) regulations (Ag). (1)
20. **The 129 metre Nisshin-maru (A)** suddenly (Cm) turned (Pm) towards our bow (Cl) 21. **and then** veered (Pm) away (Cl). 22. **Some of the crew (S)** saw (Pme) [[what (A) was coming (Pm)]] (Ph) 23. **and** headed for (Pm) the shelter of the bridge (G). 24. **With a loud crunch (Cm)**, the Nisshin-maru (A) fish-tailed (Pm) into the Arctic Sunrise (Cl) near the bow (Cl).
25. **On-board campaigner John Bowler (Cr)** was (Pcc-a) on the bridge (At) 26. **when the Nisshin-maru (A)** hit (Pm). 27. "**It** threw (Pm) me (G) 28. **and I (A)** got (Pm) a good bang (G). 29. Nothing too serious (At) 30. **but** like a good punch to the ribs (At). 31. **I (S)** know (Pme) 32. **the rest of the crew (G)** was <definitely (Cm)> jostled around (Pm) a bit (Cm)."
33. **During the incident (Cl)** Phil (A) was shooting (Pm) some video (R) for the folks back home (B) 34. **(our cameraman and videographer (Cr)** were (Pcc-i) on the inflatables (At)). 35. **On impact (Cl)**, Phil's camera (A) went flying (Pm), 36. **but his video (A)** clearly (Cm) shows (Pm) 37. **Japan's factory ship (A)** over-taking (Pm) the Arctic Sunrise (G) in an unsafe manner (Cm).
38. **Basic navigational law (Sy)** states (Pv) 39. **that "...any vessel [[overtaking (Pm) any other (G)]] (A)** shall keep out (Pm) of the way of the vessel [[being overtaken (Pm).]] (G)" (2) 40. **These laws (Vb)** are set forth (Pv) by the IMO (Sy) 41. **and any sailor [[worth his or her salt (At)]] (S)** knows (Pme) them (Ph) inside and out (Cm). 42. **For some reason (Cc)**, **the pilot of the Nisshin-maru (A)** refused to adhere (Pm) to universally understood maritime practice (G).
43. **Given (Pm) [[the deliberate nature of this manoeuvre not to mention yesterday's attack on our helicopter with fire hoses,]] (G)** 44. **the obvious conclusion (T)** is (Pi-i) [[that the Nisshin-

maru (A) deliberately (Cm) rammed (Pm) our ship (G) in an attempt [[to intimidate (Pm) // or disable (Pm) us (G).]] (Cc)] (V)

45. **Intimidation (Cr)** is (Pi-a) one thing (At), 46. **but when you (Cr) are (Pcc-a) thousands of miles from the nearest safe harbour (At)** 47. **and the rough seas (A) regularly (Cm) hover (Pm) around the freezing point (Cl)**, 48. **[[trying to “brush back” (Pm) another ship (G)]] (Cr)** is (Pi-a) downright dangerous (At).

49. **“I (S) doubt (Pme)** 50. **that the captain of the Nisshin-maru (S) really (Cm) thought through (Pme) the possible consequences of his actions (Ph).”** 51. **said (Pv)** Sunrise captain Arne Sorensen (Sy). 52. **“This behavior (Cr)** was (Pi-a) completely irresponsible (At).”

53. **By 2:40 (Cl)** we (Ag) had managed to get (Pc) 54. **the Nisshin-maru (Sy)** to answer (Pv) our repeated hails by radio (Vb), 55. **and at their request (Cc)**, had brought (Pm) our Japanese translator (Namhee) (G) to the bridge (Cl). 56. **Arne (Ag)** had (Pc) Namhee (Sy) repeat (Pv) 57. **that Greenpeace (Cr)** is (Pi-a) a peaceful organization (At) 58. **and that we (A)** will do (Pm) nothing [[to harm (Pm) or endanger (Pm) the whalers (G).]] (G) 59. **When asked (Pv)**, 60. **the captain of the Nisshin-maru (Sy)** refused to promise (Pv) us (Rv) the same (Vb). 61. **Meanwhile (Cl), Thilo Bode, director of Greenpeace International (A)** was preparing (Pm) a letter of protest (G) to the Institute for Cetacean Research, the Japanese organization [[that (A) oversees (Pm) the whaling program (G).]] (B)

62. **Today (Cl)** the whaling fleet (A), * showed (Pm) 63. **that they (Cr)** have (Pp) no more concern (At) for marine navigation laws (Cl) 64. **than they (Cr)** do (Pp) or the Law of the Sea (Ct), 65. **which (G)** they (A) are violating (Pm) 66. by whaling (Pm) in the Southern Ocean Sanctuary (Cl). 67. ... **which (G)** is bankrolled (Pm) by the Japanese government (A), 68. **FORTUNATELY, no one (G)** was <seriously (Cm)> hurt (Pm), 69. **and the damage to the Arctic Sunrise (Cr)** was (Pcc-a) all above the waterline (At).

70. **Inspections (A)** continue (Pm), 71. **but the chief engineer (Cr)** is (Pi-a) sure (At) 72. **the hull (Ct)** remains (Pi-a) sound (At). 73. **We (S)** did not see (Pme) any real damage to the Nisshin-maru (Ph), 74. except maybe a few small dents (Ph). 75. **HOPEFULLY, everyone over there (Cr)** is (Pi-a) OK (At).

76. **The rest of today (V)** will be taken up (Pcc-i) with repairs to the Arctic Sunrise (T) 77. — **although we (Cr)** have (Pp) no intention [[of letting (Pc) // the whaling fleet (A) escape (Pm)]] (At). 78. **The Arctic Sunrise (Cr)** is (Pi-a) a tough ship with a good crew (At). 79. **Today’s incident (A)** has done (Pm) nothing [[to damage (Pm) our resolve (G)]] (G). 80. **On the contrary, we (Cr)** are (Pi-a) more determined than ever (At) 81. to stop (Pm) Japan’s **illegal** whaling program. (G) 82. **And come tomorrow (Cl)** that (Cr) is (Pi-i) exactly (Cm) [[what (R) we (A) are going to do (Pm).]] (At)