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The erasure of nature in the discourse of oil production: Part I of an enhanced Eco-Discourse Analysis

Abstract: In this two-part article, we analyse alternative discourses of the environment from the Shell Oil Company and Greenpeace USA and suggest ways in which elements of these antagonistic discourse might be combined in a hybrid, innovative discourse that appeals to a broad section of the public while advocating for more environmentally sustainable practices in industry. IN order to develop this model we address concerns with regard to both Critical Discourse Analysis (CDA), which has been said to focus on the negatives and on deconstructing 'the discourses we dislike', and on Positive Discourse Analysis (PDA), which has been criticized for cherishing 'the discourses we like' without due consideration of their potential for uptake. We argue, therefore, that while each approach has its advantages, taken individually they hamper *design* and, following Bartlett (2018), we propose an enhanced Positive Discourse Analysis that not only identifies points of fissure in the hegemonic discourse but also seeks points of convergence that can be articulated with in a hybrid, counter-hegemonic discourse that maximizes its potential for uptake while destabilizing the prevailing discourses at precisely the fissure points identified.. Part I explores the theoretical grounding for an enhanced PDA, introduces the research method and then, based on the adapted analytic framework of Stibbe (2016), makes an eco-discourse analysis of discourses by Shell Oil Company (SOC), with a focus on their discourse semantic patterns, in an attempt to showcase how hegemonic groups employ discourse strategies to serve their interests and what ecological effects such discourses may produce. In Part II, a comparative analysis is conducted on the SOC discourses and the Greenpeace discourses. As well as highlighting the points of antagonism between the two discourses, an attempt is made to seek out points of convergence between progressive positions in the discourses. Part II also explores the potential fissures in the hegemonic order and discusses the design of alternative discourses thereupon. It is argued that an enhanced PDA which focuses on solutions rather than problems and collaboration rather than resistance forms a route for positive and interventionist orientations to discourse that promote social change.

Key words: enhanced positive discourse analysis; discourse across difference; fissure; discourse semantics; collaborative discourse

1. Introduction

The rapid destruction of the ecological system is one of the most pressing issues of the present time. In addition to the calls for technical solutions to the ecological problems, the last decades have seen a wide array of efforts from different fields such as feminism (Adams and Gruen 2014), psychology (Fisher and Abram 2013), sociology (Stevens 2012), political science (Robbins 2012) and environmental communication(Cox 2012). These emphasize the social, cultural and political causes of the problems.

Linguists have also sought to make a contribution to the development of society along more ecological lines. These efforts can be traced back to Haugen (1972), with its focus on languages in their environments, and Halliday (1990/2001), with a focus on language and environmental problems. Halliday (1990/2001: 193) identifies 'a syndrome of grammatical features which conspire to construe reality in a certain way that is no longer good for our health as a species'. The distinction between countable and uncountable entities, the pronoun system, nominalization and transitivity are

part of this syndrome. Halliday (1990/2001) claims, for example, that by categorizing 'water' and 'oil' as uncountable, the grammar construes them as existing without limits as if they were inexhaustible.

The growing recognition of the importance of language in ecological conservation has contributed to the emergence of the field of *ecolinguistics*, which according to (Stibbe 2016: Preface), 'shows how linguistic analysis can help reveal the stories we live by, open them up to question, and contribute to the search for new stories'.

One central theme of ecolinguistics is that humanity's domination of nature, the Anthropocene, is the main cause of ecological deterioration. Within this process, language is attributed an important role as it influences how humans think about the nature and hence treat the world. As one sociologist of the environment puts it: 'We are in trouble just now because we don't have a good story' (Berry 1988.: 123). Many theoretical constructs and studies have since appeared, which are concerned with the relation between language and the environment (Fill and Mühlhäusler 2001; Mühlhäusler 2001, 2003).

However, ecolinguistics is still limited to the discussion of the relation between language and ecology, often from a critical perspective, rather than designing alternative discourses aimed at promoting more environmentally-conscious practice. While critique leaves the initial definition of the domain of analysis to the past and to past productions, *design* takes the results of past production as the resource for new shaping, and for remaking (Kress 2000). Ecolinguistics needs to take a practical turn, and one that feeds back into theory. It is here that ecological discourse analysis (EDA) fits in. EDA aims to reveal 'commonsense assumptions built into the prevailing discourses of society' (Stibbe 2014: 119). Nash and Mühlhäusler (2014: 8) assert that the challenge within EDA is to 'create functional interconnections between philosophical and empirical approaches to ecolinguistics and to apply such an integrated approach to practical problems faced by users of language'. Such definitions, therefore, point to both a critical approach, in challenging common-sense assumptions, and a more practical approach in identifying practical solutions. The difference in approach these two orientations entail reflects different analysts' epistemological stance on the way to protect the ecology. In this paper we discuss an enhanced approach from Positive Discourse analysis (PDA) that seeks to combine the critical and the practical in a unified framework of analysis and action.

2. Eco-discourse Analysis: CDA or PDA approach

Proceeding from the goal to 'understand, expose and ultimately resist social inequality', CDA is 'a type of discourse analytical research that primarily studies the way social power abuse, dominance, and inequality are enacted, reproduced, and resisted by text and talk in the political context (Van Dijk 2001: 352). It is based on a moral framework of care, compassion and empathy with oppressed people (Stibbe 2016: 191). They hope for change through critical understanding and those power elites that enact, sustain, legitimate, condone or ignore social inequality and injustice naturally become their critical targets. Given their goal, CDA researchers tend to focus on deconstructing the negative side of the world or the discourse. For example, a critical eco-discourse analysis would focus on critiques of consumer capitalism and political systems based on greedy individualism, domination or hegemony (Goatly 1996) or on the greenwashing language that an organization uses to project an environmentally responsible image (Devauld and Green 2010).   Let us consider the following example:

As oysters filter algae through their gills, they also remove nitrogen from sewage, as well as fertilizers and other pollutants that wash from the land. A single oyster can clean up to 190 liters of water every day more than the amount of water used by a 10-minute shower.

The world will need much more energy to power homes and fuel transport for a growing population with rising living standards. But to counter climate change, energy must increasingly come from lower-carbon sources. Our know-how, technology and innovations are helping to deliver more, cleaner energy. (Extracted from SOC Corpus. See below)

A critical approach would be a critical deconstruction, that is, to expose language and attendant semiosis in the service of power. For the above statements, if we adopt a critical approach to eco-discourse, we could examine how the Shell company manipulatively uses argumentation strategies to justify its role and promotes itself as an environment-friendly company or how nominalization is used to obscure and thus to cover up agency and responsibility (Fairclough 1992).

However, such a critical 'blaming' approach is seen as limited by Bartlett (2012), who argues that criticism or blaming tends to take a negative reaction to hegemonic discourse rather than develop the potential for discourse to offer genuine emancipatory alternatives and therefore on their own contribute little to the real solution of problems. Bartlett's approach, therefore, starts from where a CDA approach finishes, moving from the recognition of potential alternatives advocated by Chouliaraki and Fairclough, to the active design of these:

There is a compelling need for a critical theorization and analysis of late modernity which can not only illuminate the new world that is emerging but also show what unrealized alternative directions exist—how aspects of this new world which can enhance human life can be accentuated, how aspects which are detrimental to it can be changed or mitigated. Thus the basic motivation for critical social science is to contribute to an awareness of what is, how it has come to be, and what it might become, on the basis of which people might be able to make and remake their lives. (Chouliaraki and Fairclough 1999: 4)

This positive approach to CDA represents a shift from critique to what Kress calls Design. (Re)designers are not satisfied with reinstantiating any already available design or a simple recombination of available designs; instead, they focus on the *remaking* of themselves through 'deliberate deployment of representational resources in the designer's interest' (Kress 2000: 156). Therefore, a positive approach to eco-discourse analysis would focus on the 'greening' of language that has encouraged the development of a certain moral and aesthetic sensibility that has influenced our forms of public life (Goatly 1996; Stibbe 2016).

However, while *design* may eschew the simple recycling of existing discourses, Martin (2004/2012) has identified the need for existing positive discourses that can serve as models in the process of design. He emphasizes the need to 'move beyond a preoccupation with demonology, beyond a singular focus on semiosis on the service of abusive power' (Martin 2004/2012: 298) and to 'positively value some aspect of social change' (Martin 2007: 85-86). Stibbe (2014; 2016) and Bartlett (2018) follow this line of positivity. Stibbe intends PDA to seek out and promote discourses which could potentially help protect and preserve the conditions that support life… through raising awareness of the role of language in ecological destruction or protection (Stibbe 2014). The purpose

of eco-discourse analysis, according to Stibbe (2014: 117) lies in 'questioning the stories that underpin our current unsustainable civilization, exposing those stories that are clearly not working, that are leading to ecological destruction and social injustice, and finding new stories that work better in the conditions of the world that we face'. To put it simple, he highlights the promotion of the 'specific clustering of linguistic features that convey the worldview' of positive texts – for example, texts which "express scientific knowledge but without devaluing other species' (Stibbe 2014: 124). Bartlett (2012, 2018), however, critiques approaches that focus purely on promoting positively-valued discourses without considering the potential for their uptake not only as a challenge to the hegemonic discourse but potentially within it and hence perturbing the discourse as a whole. According to this perspective, a PDA analyst would examine both the contradictions and tensions within the hegemonic order as well as the positive messages within existing counter-discourses in order to develop alternative representations that can be naturalized within the existing order while challenging it.

In raising awareness of the role language in ecological protection, a positive approach emphasizes both resistance to what is harmful in hegemonic discourses and the promotion of positive texts that could help preserve ecological conditions. A PDA approach to eco-discourse analysis is to discover constellations of language features which tell a useful story and apply these language features to a wide range of texts which shape how we think about nature (Stibbe 2018). Therefore, PDA analysists 'look at 'healing' discourses that 'make the world a better place' (Schröter 2015; Bartlett 2018). For example, in the following example from my corpus, researchers would identify how human beings and animal beings and nature comprise a whole and can live harmoniously or as Stibbe (2018) proposes, aid in the search for new stories that inspire people to protect the natural world:.

> *On a recent dive two curious and playful seals joined our diver at the surface. We got it on video and added a little music. The wildlife here is truly magnificent, but it's in need of protection.* (Extracted from GPU Corpus. See below)

From Bartlett's (2018) perspective, however, such alternative discourses are only as valuable as their level of uptake, either within the prevailing hegemonic discourse or as a counter to it.

We can at this point briefly summarize the principal difference between CDA and PDA. Though many CDA texts mean CDA to encompass both negative critique (exposing social wrongs like oppression and discrimination) and positive critique (analysis of how people seek to remedy or mitigate social wrongs and of resistance), most scholars focus on deconstructing the dominant hegemonic discourses in an effort to undermine oppressive social mechanisms, leaving aside positive critique and counter-discourses. Hughes (2018), however, suggests that his lack of attention will ultimately hamper the emancipatory aims of CDA. According to Hughes, 'while deconstructing the discursive dimensions of oppressive social structures is necessary for understanding where we have been and what we are fighting against, reconstructing resistant discourse is more useful approach for imagining progressive social change' (Hughes 2018: 196), because analyzing resistant discourse informs our ability to 'reflect on our own position and role in knowledge-based struggles over discourse' and to 'reclaim, valorize and empower' resistant discourses in contexts of struggle. It follows that neither critique nor design alone is enough to enforce social change. 'In order to have some ideas of what progress entails, we must first understand what problems exist'. Therefore, a

dialectical use of deconstruction and reconstruction, and of a critical approach and a positive approach is ideal in ecological discourse analysis. Such a postfoundational thinking 'not only brings the fissured, fragmented, multivocal dynamics of contemporary discourse into the foreground, but can also provide integrating 'generative' critique more firmly into the overall project of CDS' (Macgilchrist 2016).

A postfoundational perspective, which the present paper is going to adopt, seeks to expose the fissures in what had seemed to be a certain and fixed ground. At the same time, it sees a grounding as necessary in order to communicate and act at all and thus the possibility (necessity) of constructing 'contingent foundations' (Butler 1992). There is not an ultimate grounding to social orders. The generally accepted ground can be dislocated, fissured and fragmented and new grounds can be laid. This involves bringing attention to moments of breakdown and dissonance (Macgilchrist 2016) and means resignifying, recontextualising, reframing concepts in ways that previously seemed illegitimate. A post-foundational stance allows highlighting 'the rules or grammar' of a given social practice, while at the same time drawing attention to 'the conditions which make the practice both possible and vulnerable' (Glynos and Howarth, 2007:136). For example, Macgilchrist and Praet (2013) explore the fissures in the hegemonic historical discourse by in investigating how history textbook writers in Germany contest dominant historical narratives and thus legitimize radical democracy. Hughes (2018) examines how a multiply disabled activist and writer uses resistant discursive strategies to counter dominant discourse about disability and thus disrupts the hegemonic social order. In our present case, we will search for political action that destabilizes the destructive discourse as a hegemonic apparatus of order.

Though scholars such as Marchart (2007, 2010, 2016) have theorized postfoundational thought, they don't provide an operational framework for empirical analysis. A comparative ecological discourse analysis, the present paper argues, would serve as a model of analysis: it can reveal what may be potentially destructive while showing an alternative practice. By comparing competing environmental discourses, we can both identify those moments of dislocation, those aspects of discourse which breach or fissure the dominant discourse leading to doubt about prevailing certainties, while also identifying potential areas of common ground upon which alternative discourses can be founded. Such a 'yin and yang' approach (Martin 2004/2012:7-9), which integrates both 'deconstructive and constructive activity', moves beyond the 'demonology' of much CDA. In the present papers, we will apply such an integrated approach. In the first paper, we deconstruct the dominant discourse to reveal underlying patterns that justify energy demands, erase natural life while downplaying environmental damage, and present SOC as a philanthropic identity and innovative organisation. In the second paper we analyse the competing arguments of Greenpeace USA and consider how these are framed as a counter-discourse to the hegemonic assumptions in the SOC texts. However, such an approach is not without limitations. In the discussion section, we will argue that this approach is still antagonistic as it sets the innovative discourse in opposition to the hegemonic discourses. Such an antagonistic view hinders communication between both sides and is still not beneficial to the solution of the problem. Jepson (2005: 520), in reports on a 2004 European study, shows that '78% of people were skeptical or unconvinced on environment issues . . . despite the millions of pounds spent on campaigning'. This antagonism is also observed in the passionate speeches of the Swedish teen climate activist, Greta Thunberg. However well-meaning her call for environmental protection is, her protests will only create behavioral change if they not only challenge the hegemonic discourse but also resonate with

the discourses of a sufficient number of counter-discourses to enable the articulation of an alternative hegemonic discourse. This means that a black-and-white solution to environmental disputes is unlikely to work. Instead, fostering a shared understanding of the nature and consequences of climate change and its solutions is critical (qtd. in Bednarek and Caple 2010). To orient research to solutions rather than problems, we will argue for the necessity of both finding the 'fissure(s)' in the hegemonic discourse and of facilitating the uptake of new designed discourse on the basis of common ground between the hegemonic and alternative discourses. We call this approach an enhanced PDA approach, as advocated in Bartlett (2018).

3. Research methods of eco-discourse analysis

In terms of research methods, existing eco-discourse analysis tends to focus on the lexico-grammatical perspective, such as nominalization (Martin 1986/2012; Haig 2001; Alexander 2009) and transitivity (Goatly 1996, 2002). Such a method offers a close reading of a small number of texts and reveals how lexicogrammatical representation may help raise ecological awareness, but the representativeness and generalizability of the analysis remains in question. Some scholars examine the lexical patterns aided by corpus (Grundman and Krishnamurthy 2010; Martha et al. 2010; Grundman and Scott 2014). This corpus method tends to focus on low-level lexical features and neglects their discourse semantics. Examples include Grundman and Krishnamurthy (2010), who explore keywords surrounding the issue of climate change, and Grundman and Scott (2014), who look at the terms *global warming*, *greenhouse effect* and *climate change* and their equivalents in French and German. Poole (2016) is an exception, who focuses on the semantic tag analysis of destructive environmental discourse, but without categorizing their discourse strategies. Stibbe (2016) provides a comprehensive analytical framework of ecological discourse analysis integrating the idea of 'stories we live by' with framing theory, appraisal theory and identity theory, etc. In total, Stibbe (2016) reveals eight forms of stories (ideologies, framings, metaphors, evaluations, identities, convictions, erasure and salience), which we choose to call discourse strategies. This framework, however, so far has been little applied and would be more explanatory and powerful if aided with corpus methods. Corpus methods could broaden empirical base, reduce researchers' bias and as this study will show, describe salient semantic features.

As Van Dijk argues,

> Semantic representation of opinions in attitudes or models needs to be analyzed in context: the mere use or application of a word such as 'terrorist' does not imply, as such, that the speaker believes that the word should be so applied and that a social group deserves to be called that way. (Van Dijk 1995: 262)

Weighing up the advantages and disadvantages of corpus methods and Stibbe's framework, in this research we argue for a corpus-aided comparative ecological discourse study, which generally follows Bartlett's analytical schema: ① identification of a problematic issue; ② analysis of 'opposing' discourses; ③ identifying tensions and areas of commonality; ④ discussion of conditions of possibility for assimilation of discourses (Bartlett 2012: 219). Whereas Bartlett's own work has generally been of a qualitative nature, the "analysis of opposing discourses" stage of PDA can include any relevant method or motivated combination of methods. In this paper, we combine quantitative calculations of the distribution of discourse semantic patterns based on manual analysis of the relevant concordances in the corpus, as well as qualitative explanations of the strategies.

By conducting a corpus-aided comparative discourse semantic analysis, we may be able to identify both the similarities and differences between the opposing discourses, that is, the tensions between them (Bartlett 2012). Though the present study will focus on the tensions *between* the opposing groups' discourse, it could be extended to consider the extent to which such tensions represent 'fissures' within a hegemonic social order which relies on the coherent articulation of the discourses in question. With the 'fissures' identified, we can also seek alternative discourse to replace existing hegemonic discourse at these weak points with discourse that is empathetic, comprehensible and legitimate to a coalition of social forces, not excluding the possibility of the formerly antagonistic groups, and thus enables the uptake by the audience and makes for social change.

The research questions of this study include:

1. How are the semantic patterns of the two discoursal groups with opposing interests different from each other?
2. What do the discourse semantic patterns reveal as regards their cultural codes (worldview) of the environment?
3. What ecological effects will these semantic features and discursive strategies produce?
4. How could fissure(s) in the hegemonic discourse be identified and common ground be sought?

It should be noted that Part I of this article is mainly devoted to answering the first three questions with regard to the SOC discourse. In Part II, a comparison will be made between the SOC discourses and the GPU discourses and the potential fissures in the hegemonic discourse and common grounds will be explored with a hint at the possible *design* of alternative discourse.

4. Data and methods

4.1 Data introduction

Stibbe (2016) classifies discourses into destructive, ambivalent and beneficial discourses according to the ecosophy he proposes, i.e. discourses should value the lives and wellbeing of humans and other species, promote reduction in consumption and social justice, or work towards resilience.

According to Stibbe's (2016) classification, destructive discourses are those that encourage people to destroy the ecosystem that life depends on, such as the discourse of economics, consumerism, advertising and intensive agriculture, while ambivalent discourses comprise the discourses of environmentalism, ecology, conservation, sustainability and green advertising that deals with the ecological problems caused by destructive discourse but which are influenced by political or commercial interests, and beneficial discourses are those that encourage more ecologically beneficial behavior. However, it should be emphasized that beneficial discourses are only beneficial when they are taken up; otherwise, they would be just pretty 'stories', in Stibbe's word. The discourse by Shell Oil Company (hereinafter referred to as SOC), which Amnesty International has heavily criticized for its serious environmental pollution and which, as the following analysis will show, promotes consumption and devalues other species than humans, represent the destructive discourse. The discourses by Greenpeace USA (hereinafter referred to as GPU), which is an independent global campaigning organization 'fighting for a greener, healthier world for our oceans, forests, food, climate, and democracy,' is considered to be ambivalent in that although they promote reduction in consumption and values other species than humans, they are politically loaded and do not pay enough attention to social justice.

Much environmental debate is focused on the Arctic, which may contain around 20% of the world's remaining undiscovered oil and gas resources. Since the most easily extractable fossil fuel reserves have been exploited, and the Arctic ice pack shrinks, governments and oil companies have begun to look for new resources in the Arctic. Given these threats, protests against oil and gas projects constantly arise from environmental groups, such as Greenpeace, which constitutes the focus this study.

This study involves two large self-built corpora, namely the Shell Oil Company corpus (SOC corpus for short) and the Greenpeace USA corpus (GPU corpus), whose contents are extracted respectively from the official websites of SOC and GPU. Specifically, the SOC corpus consists of 317 news items collected from columns of Media Release, published during the period from 2012 to 2015; 54 stories from Inside Energy Stories; and 74 articles from Energy and Innovation, which are made up of texts from subdivision columns of The Energy Future, Natural Gas, Deep Water, Overcoming Technology Challenges, Innovating Together, Make the Future and Shell Eco-marathon[1]. Additionally, as sustainability reports are largely relevant to environmental issues, the SOC corpus also contains six pieces of sustainability reports, ranging from the year of 2010 to 2015[2]. In all, there are 445 relevant texts and 6 annual sustainability reports in SOC corpus, with a total word count of 388,094. To generate comparable data, an electronic search was conducted for the 'node term', 'Shell', in the Greenpeace official website, and 496 texts, totaling 315,939 words of the GPU corpus have been collected. These texts range from blog, news, page to research and stories, which were published between October 21st, 2006 and February 10th, 2017.

4.2 Research Procedure

To provide a scientific and comprehensive analysis of differing discourses with opposing ideological interests, this study has drawn together the analyses of keyword lists and concordance plots, both of which are derived from the corpus tool AntConc. To eliciting the keyword lists for both groups, we follow Baker's (2006: 125) approach to the examination of keyword lists. Using AntConc, we compare the frequencies in one wordlist (SOC) against another (of GPU) in order to determine which words occur statistically more often in wordlist A when compared with wordlist B and vice versa. The result of such a comparison points towards the 'aboutness' of a text or homogeneous corpus, that is, its topic and the central elements of its content.

While the keyword list enables a scientific confirmation for the major concerns in each party's inclusive corpus, concordance of the target word makes possible further detailed semantic analyses that will contribute to the detection of the language patterns and the embedded linguistic strategies on both sides. In this way, this study has analyzed the top 50 keywords in each corpus. For further classification and extraction of semantic clusters, we read the concordances and AntConc allows a 'view file', that is, to view the words in the file they appear. Classification of semantic clusters is based on results of keyword analysis and extractions of specific expressions that have been displayed in concordance lines. The integration of collocation and semantic cluster analysis is intended to reveal underlying stories of the competing environmental discourses and helps identify the tensions and areas of commonalities and differences. To guarantee the accuracy of analysis, we not only examined the sentences containing the keywords, but also counted in the neighboring sentences circling around keywords. We not only seek to identify the language patterns of each side, but also categorize them according to the eight stories (or strategies, in our understanding) Stibbe (2016) sums up. As the eight stories are not 'separate and distinct' (Stibbe 2016: 188) but interact

and overlap with each other, and also due to space constraints, we mainly use the four stories (strategies) of facticity, framing, erasure, and salience.

5. Analysis and Discussion
5.1 Keyword analysis of SOC corpus

In corpus linguistics, items on the keyword list occur in a substantially higher rate in the target corpus than in the reference corpus. Thus, from the keyword list, we can derive the focusing area from a large corpus.

Rank	Keyword	Frequency	Keyness	Rank	Keyword	Frequency	Keyness
1	dividend	1001	1210.788	26	natural	692	367.23
2	our	3977	1175.112	27	water	996	363.826
3	gas	2225	1122.569	28	investment	437	361.2
4	shares	936	1096.439	29	improve	371	355.713
5	programme	711	763.51	30	business	707	355.304
6	quarter	651	673.754	31	tax	443	344.453
7	share	861	673.487	32	shareholders	386	343.567
8	sustainability	611	659.22	33	reduce	454	331.168
9	shell	5369	647.181	34	social	519	325.408
10	dividends	507	613.256	35	interim	267	322.958
11	performance	531	571.682	36	emissions	749	322.483
12	production	841	558.714	37	equivalent	294	300.184
13	development	781	554.747	38	safety	675	297.88
14	project	798	521.866	39	local	697	292.854
15	and	2272	470.128	30	upstream	251	292.13
16	cash	444	469.289	41	we	3828	291.064
17	tonnes	411	450.885	42	report	772	288.078
18	Nigeria	437	425.92	43	Dutch	639	287.511
19	technology	565	415.64	44	principles	250	274.562
20	energy	13537	410.333	45	joint	322	272.863
21	projects	639	408.678	46	facilities	328	271.172
22	royal	528	405.128	47	reference	251	268.748
23	operations	736	385.99	48	road	275	267.012
24	scrip	317	383.436	49	price	361	261.978
25	per	556	370.848	50	develop	312	261.932

Table 1 Top 50 Keywords in SOC Corpus

As is presented in the Table 1, privileged attention of SOC corpus has been paid to economic concerns in such words/expressions as *dividends*, *shares*, *cash*, *investment*, *business*. There is also a cluster of entity references, namely *our*, *Shell*, *shareholders*, *we*, from which we can infer that Shell has shown great concern for their shareholders and has taken the stance as a reporter (by the use of pronouns like *our*, *we*) to present what they have done and owned to the public.

A number of energy items also stand out. Great weight has been attached to *projects* and *programs*. Its performance and supervision have been modified by items like *technology*, *operations*,

safety. The upward verb, *improve*, also indicates its emphasis on innovation and advancement. Apart from these, moderate salience of the sustainable development has also been shown on the list, which is mainly accounted for by sustainability reports it has contained. And, although they do not appear high in the list of the top 50 keywords, carbon emission reduction and concerns for communities have also been pointed out.

5.2 Discourse semantic analysis of SOC discourse

In this section, trigger words for the research subject of the concordance analysis are identified first, followed by close inspection for the selected concordance and further distinction of different language patterns and linguistic strategies.

To avoid overlapping in the target concordance, only one representative item on the keyword list is selected as the search item for index of relevant concordance. Overall, the 20th item, *energy*, is inclusive of the all-round information regarding performance of its business and economic concerns. Thus, *energy* is targeted as the trigger word for concordance research. Furthermore, as the contentious issue lies mainly in the possibility of oil spills, analysis for the description of *spill* has also been undertaken for both parties.

Specifically, in the SOC corpus 2, 272 and 122 concordance hits have been found for *energy* and *spill* respectively. Through close examination and detailed classification for the concordance results, three kinds of linguistic strategies (linguistic manifestations of Stibbe's [2016: 17] 'forms of stories') have been found in SOC's speeches, namely facticity patterns, framing and erasure patterns. The specific frequency of the characteristic semantic tags in the SOC corpus has been shown in the attached table.

I. Facticity patterns in SOC discourse

The analyses reveal many facticity stories within the oil company's discourse, aimed at convincing the audience that the future needs more energy supplies, green energy system needs new energy sources, and the future world still needs fossil fuels.

i. Facticity pattern of energy demands in SOC corpus

As is shown in the Table 2, expressions carrying upward trends are used as pre-modifiers or subordinates for population expansion and urbanization development. Typical examples are listed in the cluster of speedy growth and urgent needs, such as *fast-growing and densely populated, rapid rise, expand, swell, rapid growth, sprawling metropolises, growing population*, etc. They have, altogether, intended to make salient the ideas that population growth and urbanization are irresistible. In addition, the important role played by energy in the quality lives and daily operations of cities has been frequently illustrated. People are encouraged to pursue lives with better quality in expressions like *enjoy higher standards of living, expecting better living standards, quality of life they deserve* (shown in the cluster of better life).

Tag description	Examples	Frequency
better life	becoming wealthier, rising living standards, expecting better living standards, quality of life they deserve, enjoy higher standards of living, power our homes, fuel our vehicles, heating	18

and cooling homes and offices, powering people's cars and homes

power urban services	fuel transport, help meet the world's growing needs, strengthen urban services and energy supplies, high overall wealth and living standards, global demand, our shared well-being and prosperity, global energy demand, urbanization, these cities, energy-needy world, regional commercial hubs, mega-hubs	92
speedy growth and urgent needs	fast-growing and densely populated, rapid rise, expand, swell, rapid growth, sprawling metropolises, growing population, soaring, prosper, grow, is rising, growing, increases, ever greater	288
presupposition	needs to, would have to be, will need, will be needed to, will struggle to keep pace, is set to double, will have doubled, is likely to, will become, will buy, will continue to put on, will require	483
reasons for new energy sources	counter climate change, powering smaller and more resilient energy plants, future demand, has substantial efficiency gains, resilience and sustainability, enabling a better quality of life and healthy planet, smarter and more resilient urban environments,	14
new energy sources	global energy system, new energy sources, photovoltaic solar power, cleaner-burning natural gas, long-term energy plans, backup supply, renewables, shift in the energy mix, hybrid energy systems	104
modality: high facticity	must, depend on, is rising, works well, can be, has, is spread out and embedded in, is high, is well on its way, is buzzing, is only truly, must take, has to be met, that is the result, is beginning, rises	1732
appraisal: highly-positive	vital, convenient, reliable, affordable, essential, much-needed, clean, efficient, hungry for, sustainable, reliable, economically sensible, efficient, works well, flexible, perfectly suited, perfect, particularly effective, high-performance, non-toxic, cost-effective	731
authority (technology experts)	the US National Academy Board on Chemical Sciences, the US Department of Energy Hydrogen Technical Advisory Committee, Energy Technology Institute, Stanford University's professor, one of the world's leading energy experts	18

Table 2 Semantic clusters concerning energy demand in SOC corpus

High modal assumptive verbs like *will become, will buy, will continue to put on, will require* are used to predict that people will require more energy consumptions after they get richer, which arbitrarily presuppose people's future energy demands. Based on this presupposition, high modal

verbs in clusters of presuppositions are used to strengthen the facticity of the growing energy demand. The facticity gradation increases from relatively high modality in phrases such as *will need, will struggle to keep pace* to high modality in presuppositions such as *is set to double*. Eventually, entirely void of any modal, the application of *needs to* (a clever mix of prediction, which sounds more factual), symbolizing the highest facticity, shows that energy demand expansion is a must.

In addition, studies and predictions from expert voices make salient the authority and reliability of energy growth predictions, which further consolidate the message that the future will need higher levels of energy supply.

Except for the issue of energy demand growth, exploitation of new energy also appears in the SOC corpus. Besides the growing energy demand, climate change, resilience and sustainability are also listed as driving forces for the new energy development. Evaluative lexis, like *high-performance, non-toxic, reliable,* recognize the cleanness and high efficiency of the new energy, give salience to the edge of new energy in the future energy structure adjustment. High modal verbs like *must, has to* and expressions like *depend on, works well, is high, is well on its way, that is the result* are used to make the claim that that future energy system cannot sustain without new energy, and that new energy needs to be exploited, recognizing that green energy system needs new energy.

To win supports for fossil fuel exploitation, the oil company uses positive modifiers and high facticity patterns to make salient the opinion that future energy supply still needs fossil fuels to offer partial support. Specifically, the oil company uses modifiers like *nearly unlimited* and *abundant* to emphasize the impression of plentiful reservoirs of fossil fuels. Specific large percentages are set to highlight the important role the fossil fuel will play in the current and future energy system. The application of future tense expressions with high facticity like *will continue to be met by, will be needed* (which sounds like a kind of obligation)*,* and relative authoritative expressions like *(IEA) World Energy Outlook 2014 estimated that, Shell's scenarios indicate that, Analysis shows that* are mainly used to affirm the indispensability of the fossil fuel. These expressions affirmatively transmit the message that as the future energy supply still needs fossil fuels, and fossil fuels cannot be entirely eradicated in the short run, fossil fuels still need exploitation, and people still needs fossil energy consumption. In essence, it is set to convince people of the production demand for fossil energy products and hence the need to keep exploiting these alongside alternative sources of energy.

The results from the concordance analysis have shown that SOC has connected the improvement of living quality and urban daily operations with energy supply, encouraging people to enjoy convenient lives powered by energy. Future population expansion, people's requirement of living quality and urbanization are cited as requiring higher energy supplies. Moreover, many facticity patterns have been applied to make exploitation of new energy appear to be necessary. In this way, offering more energy and exploiting new energy are made to conform to the demand of the times and the public in claiming as a fact that the future will need higher energy supplies and that green energy system needs fossil fuels. In the meantime, various strategies have been used to strengthen the facticity of the statement that future still needs fossil fuels.

In fact, the oil company is seeking excuses for energy exploitation in asserting the increase of energy demand, the rationality of new energy exploitation and the indispensability of fossil fuels. In doing so it strategically converts individual desires into general current needs. Moreover, in highlighting population expansion and the prospects for the future development of the city alongside this advocacy of improved lifestyles, the discourse also highlights the existence of an increased market for future energy development. In this way, the oil company emphasizes economic interests

and the potential for growth as a strategy to enhance investors' confidence and, thus, win more financial support from them.

This discourse serves to blind the public from the urgent need of changing energy consumption habits and to mislead them into reducing efforts to save energy, to reduce carbon emissions and to resist the use of fossil fuels. The underlying stories encourage people to pursue the quality of life provided by energy consumption, which instigates selfish hedonism, ignorant of the ecosystem's stability and the urgent need to reduce energy consumption. Moreover, public pressure from energy security may also lead the government to increase investments in new energy exploration. The economic interests of the energy market can also induce more interest pursuers into relentless new energy exploration and project expansion, using national energy security as an excuse for energy exploration. All these will eventually aggravate the energy reserves and ecological stability.

ii. Facticity pattern of oil spill response in SOC discourse

Apart from facticity patterns of energy demands, SOC also tries to justify the claim that oil spills rarely happen and that the oil companies are capable of dealing with possible incidents. As is presented in Table 3, the oil company is trying to minimize the potential of discourses regarding oil spills. Expressions, such as *unlikely*, *the possibility of* are positioned as pre-modifiers for oil spill, downplaying the incidence of oil spill.

Tag description	Examples	Frequency
oil spill	incident, challenges, repercussions, incidents	424
low incidence	an **unlikely** worst-case scenario, against **the possibility of** oil getting into the water or onto the ice	2
preparation and precaution	prepare, practice, safety training, response plans, management practices, regularly test	62
facilities	actions, vessels, equipment, remediation, back-up system or device	262
appraisals for facticities: positive	effective, robust, thorough, ice-class, proven, internationally-recognized, approved, improved	329
authority involved	Alaska state agencies, US Federal Government Agencies, governments	230
responser	we, the industry, global response network	49
high capacity	tackle, have the capability, has also developed, have the ability, are also used to working	9

Table 3 Semantic cluster concerning oil spill in SOC corpus

In addition, the oil company details the routine preparation and precaution to emphasize their security awareness. Various facilities, collocated with positive appraisals like 'effective' and 'robust', have been used to highlight their full preparation for the possible spill accident. Except for the pronoun *we*, *the industry* and *global response network* are positioned as the actor, aiming to take advantages of the authority of these organizations to reduce people's worries about the oil spill and to enhance people's trust in the oil company. Expressions indicating high capacity, like *have the capability, has also developed, have the ability, tackle*, affirm their responsive ability toward the oil spill, showing their confidence in accident response and increasing people's supports for their programs.

II. Framing patterns in SOC discourse
i. Framing of security identity in SOC discourse
As is shown in Table 4, in order to alleviate public worries and concerns over employees' safety, SOC uses many expressions refer to security. A number of basic words are also used to specify various security measures in a safety-conscious culture of construction, reflecting the all-round concern for the security of energy projects. In the meantime, positively indicative clusters of expressions of reliability and superlative expressions reinforce images of the companies' rigorous and meticulous security management. Additionally, items indexing a high degree of attention, such as *central focus, focusing relentlessly on, top priority, critical, paramount and fundamental*, are used to convey a sense that companies are always vigilant in monitoring conditions and ensuring the safety of their workers. Framing of the security image is intended to enhance people's trust in the energy project so as to draw more support for their energy exploration.

Tag description	Examples	Frequency
references of safety	safety concerns, reliability, road safety, personal safety	173
safety culture	safety rules, safety limit, safety procedures, safety standards, Safety Inspection tests, transport safety measures, safety auditing, safety precautions, safety performance	78
reliable	rigorous, detailed, stringent, safe, reliable, affordable, consistent, strict, strong	448
superlative degree	the best, the highest, the most	145
safety first	central focus, focusing relentlessly on, top priority, critical, paramount, fundamental, attention, oversees, priority	224

Table 4 Semantic cluster concerning security in SOC corpus

ii. Framing of philanthropist identity in SOC discourse

Tag description	Examples	Frequency

training (innovation) program	Fuel Save Driver Education Program, government program training program, Manager Program Development, The Bridging Employment through Skills Training (BEST) program, social investment program, electronic tagging program, innovation program, Springboard program, makethefuture program, CRCL program, research and development (R&D) program,	72
positive subordinates	helps, has helped, provides funding, has benefited, brings together, inspiring, encourages, advanced, to improve	605
targets of program	improve their fuel economy, help other cities adapt to climate change, poor and unemployed young adults, innovators, entrepreneurs and technology start-ups, young minds	66

Table 5 Semantic cluster of *program* in SOC corpus

As is shown in Table 5, various education, training and innovation programs are found in the corpus of the oil company. Numerous charitable behaviors are used as subordinates for these programs, in examples like *helps*, *has helped*, *provides funding*, *has benefited*, *brings together*, *inspiring*, *encourages*, *advanced*, *to improve*, etc. Taken together, these acts construct a philanthropic identity for the oil company. However, considering the target group, *poor and unemployed young adults*, *innovators*, *entrepreneurs* and *technology start-ups*, *young minds*, *sustainable energy future*, we can make an inference that the oil company is more of an investor than a philanthropist. The reason is that the young non-employee eventually serves in the front tier of the company's business, filling the vacancy in the most arduous and dangerous work. Financing the innovator and the startup can appeal to more innovative talents to provide support for new ideas and innovative technologies. In addition, technology training programs can help the employee grasp the new technology as soon as possible. Familiarizing the employee with the facilities' operations can improve the job efficiency so as to help the company acquire more profits. In this way, the biggest beneficiary is actually the oil company itself.

iii. Framing of innovative technology giant in SOC discourse
As is presented in Table 6, the oil company uses terms of various innovative technologies to display its powerful energy exploration technology. Expressions like *key to the success, core of our strategy, cannot afford to ignore*, are used to make salient the importance of technological innovation. Categorical subordinates further emphasize the idea of innovative technology.

Tag description	Examples	Frequency
innovation and technology	technology innovation hubs, photovoltaic technology, human ingenuity, innovation and technology, renewable technology, innovation program, competitive performance	19
important	key to the success, cannot afford to ignore, vital, core of our strategy	58
customer-oriented	affordable, simple, easily portable, customized, advanced	275

enable, is able to, will do	enables, features, inspires, drive, speed up, deliver, are helping to, is able to, could provide, play a crucial role, is going to provide, will play a key role, would further close this gap	309
specific energy product	terawatts of electricity, cleaner energy for the years ahead, new sources of natural gas, deep-water oil and gas	13
meet the world's energy demand	'magic solution' to some of the world's energy needs, success of future cities, more cost-effectively developments	33

Table 6 Semantic cluster concerning technology in SOC corpus

One noticeable strategy here is that various customer-oriented adjectives are used as modifiers for products of technological innovation, emphasizing the attention to the customer experience and customer needs in research and development of an energy product. Clusters of specific energy products are displayed. The abstract reference for the contribution to meet the energy demand obscures the detailed influence of the energy exploration, exaggerating the importance of energy supply and concealing the destructive influence which has been imposed on ecology by energy consumption and exploration. The oil company resorts to such linguistic strategies in order to highlight its energy contribution and potentially win more support for the exploration project.

III. Erasure patterns in SOC discourse
Analysis also found that the effects on wildlife and causes of climate change were entirely or partly erased in SOC corpus.
i. Erasure pattern of nature in SOC discourse
In terms of the effects on wildlife, the number of creatures that have been mentioned in the SOC corpus are few and far between. In SOC corpus, the limited discourse in this regards largely treats marine lives as impediments for the progression or controllable objects, examples like *detail whales migration routes, using floating devices to attract fish to alternative areas* (as is presented in Table 7). In this way, individual creatures, like whales and fish, are supervised all the time and are forced to leave their existing ecological niches. These kinds of discourses are ignorant of these creature's rights to choose their own living areas, void of their individual willingness.

Tag description	Examples	Frequency
controllable	detail whales migration routes, using floating devices to attract fish to alternative areas	3
economic edges	Marine life is also a vital source of income for fishermen in Malaysia	1
purify polluted water	As oysters filter algae through their gills, they also remove nitrogen from sewage, as well as fertilizers and other pollutants that wash from the land. A single oyster can clean up to 190 liters of water every day more than the amount of water used by a 10-minute shower.	2

Table 7 Semantic cluster concerning marine lives in SOC corpus

In addition, *whales* and *fish* belong to super-ordinates, which are representative of homogenization. This kind of strategy regards different kinds of whales and fish as equivalents rather than individuals with their own living habits. Thus, the individuality is largely ignored. The public are blinded from the unequal treatment of wildlife and the company's egoistic behavior cannot be effectively supervised and restrained.

Additionally, in *Marine life is also a vital source of income for fishermen in Malaysia*, the oil company uses X is Y, a kind of high facticity expression, and regards the marine life as a financial source for the fisherman. This facticity strategy reifies marine life and may result in increased number of endangered species.

However, in some way, the oil company is not at all ignorant of the individuality of other lives. In introducing oysters' purifying functions, SOC places oysters in the position of actors, but the purpose is to emphasize their role in purifying human-made pollutants, such as sewage, fertilizers and pollutants. In essence, then, wildlife is presented in an anthropocentric manner, rather than discussing the sea as a natural environment in itself.

ii. Erasure patterns of causality of climate change in SOC discourse

As is shown in the Table 8, in regard to the climate change, SOC uses abstract noun phrases like *carbon dioxide (CO_2) emissions* and *cumulative emissions*, participles like *caused by* and of-structures like *the main cause of, the effect of* to render the material process of climate change more abstract. These expressions conceal the real actor in the emission process and the culprit of climate change: fossil fuel consumption. In this way, the causality of climate change has been obscured in order to protect support for the company's energy exploration projects and guarantee continuing profits.

Regarding the reduction of the poplar ice-cap, the few relevant descriptions focus on the supervision and controls of the ice movement and exploration facilities. The functions that have been played by the sea ice in climate regulation and ecological stability are entirely avoided.

The reasons why the oil company has avoided mention of protection of sea ice probably consist of two main parts. One is to reduce public pressure regarding icebreaking practices in the exploration. The other is that SOC regards sea ice as impediments for oil and gas explorations. Therefore, the protection of sea ice is erased in SOC corpus.

Tag description	Examples	Frequency
references of ice	ice cave, sea ice, ice movement, ice management strategies, ice floe movement, ice management operation	11
cause of climate change	We must all address the real and growing climate challenge **caused by** carbon dioxide (CO2) emissions.	excerpts
	The scientific evidence shows that the rising CO2 levels in the atmosphere is **the main cause of** climate change. It is **the effect of** cumulative emissions around the world, rather than being caused by Arctic drilling.	

Table 8 Semantic cluster concerning climate change in SOC corpus

6. An interim summary

In Part I, we have weighed up the (dis)advantages of CDA and PDA and argued for an enhanced PDA which is not only destructive but also constructive. Based on the adapted analytic framework of Stibbe (2016), we found that Shell Oil Company, out of economic concerns, opts for continued energy exploration and manipulates language to rationalize this stance. Specifically, SOC uses facticity patterns to justify the continued demand for energy and to downplay the effects of oil spills. It also uses 'greenwashing' to frame its activities and to create a positive identity for itself as an organization characterized by security, philanthropy and innovation. Conversely, the SOC discourse erases representations of both natural life and the role of fossil fuel combustion in environmental degradation. In this way, we show how SOC employs discourse strategies that serve their own interests within the prevailing hegemonic order.

From a PDA perspective, this focus on revealing how the hegemonic groups use language to downplay, dehumanize and justify their practice is not, on its own, conducive to social change, as it fails to account for how the dominated group may struggle and how the hegemonic discourses could be challenged. In other words, in order to inspire social change, discourse analysts will have to broaden their coverage both to identify fissures, or points of tension, within hegemonic discourse, while also attending to viable alternative discourses. This is not to suggest that critique is of no use or that the production of progressive 'inspiring' discourse will ensure general uptake by the public.   Rather, we argue that deconstruction is the prerequisite of construction, while the uptake of innovative discourses hinges on the 'social specifics of the interactional context and the knowledge and values of the communities in which they circulate' (Bartlett 2012: 8). In other words, rather than focusing on the design of antagonistic counter discourses, there is a need to explore both the potential fissures in hegemonic discourses and the common ground between discourses and to articulate these within a hybrid, counter-hegemonic discourse that maximizes its potential for uptake while destabilizing the prevailing discourses at precisely the fissure points identified.   To this end, in Part II we compare the SOC discourse, as a destructive discourse according to the ecosophy of Stibbe (2016), with the Greenpeace discourse, as an ambivalent discourse, in order to seek out points of convergence that might underlie the design of a progressive position.

Notes:
1. http://www.shell.com
2. http://www.greenpeace.org/usa/?s=shell

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