From Eco-Jihad to Politicization: A Corpus-based Eco-linguistic Discourse Analysis of the Arab Media Coverage of the *Safer* Floating Oil Tanker

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Abstract

This study attempts a corpus-based discourse analysis of the coverage of the *FSO Safer* in Arabic media to determine the main recurrent categories and themes in the coverage produced by outlets associated with conflicting/warring parties, as well as reports from more neutral media. This study, therefore, provides analysis of media coverage on the *FSO Safer* starting with the first report from *Aljazeera* on the issue in 2019, until June 2022. This study utilized *Sketch Engine* to compile a digital corpus of Arabic news articles. The corpus consists of 47,317 tokens. Additionally, this study explores how the word *al-bīʾah* (environment) is represented in the corpus by conducting a transitivity analysis of each concordance line or clause that included the word or one of its variants. This study also examines the various manipulative strategies that media outlets associated with conflicting parties used to determine how each presented the 'other', holding them accountable should the catastrophe strike. The findings of this study indicated that the themes recurrent in the corpus include the scale of catastrophe, environmental damage in the event of a spill, economic consequences, the UN emergency plan, echo-jihad, and 'we' vs 'them', among others. The presence of the word *al-bīʾah* in the corpus clearly shows that human beings are represented as the most active of beings; those who think, do and act in the world and those who behave and speak. Inanimate objects, on the other hand, are represented as passive participants; things are done to them.

Keywords: *FSO Safer*, Arab media, corpus, discourse analysis, ecological discourse, manipulation

1. Introduction

The floating oil storage vessel *FSO Safer* contains over 1.14 million barrels of crude oil and is anchored in the Red Sea north of the Yemeni city of Al-Hudaydah. Since Yemen's civil war began in 2015, the ship has been left with almost no maintenance. Having been exposed to humidity and corrosion for more than seven years, urgent calls and warnings of a looming catastrophe have been issued by many countries, international organizations, and ecologists. Environmentalists and politicians alike have warned that the *FSO Safer* is likely to cause a catastrophic oil spill, destroying the marine ecosystems off the Yemeni coast and other neighboring countries. Hence, such an event has drawn a lot of attention from Arabic and international media. Early in December 2019, *Aljazeera* reported that oil had begun to leak from *Safer*, but subsequent satellite imagery revealed that the report was inaccurate and there was no evidence of oil leaking from the ship ('FSO Safer', 2022). *Aljazeera* was the first media network to sound the alarm about the deserted ship and the potential scale of catastrophe that could strike the environment and the lives of millions of Yemeni people already living in wretched conditions. Some of the media coverage surrounding this issue attempted to be objective to a great extent, while others tended to politicize the matter by contextualizing it in the framework of the current war in Yemen. This study attempts a corpus-based critical discourse analysis of the coverage of the *FSO Safer* in Arabic media to determine the recurrent categories and themes present in the reports from various media outlets associated with conflicting/warring parties, as well as more neutral media reports. In particular, this study attempts to answer the following questions:

1.   What are the frequent themes in the coverage of the *FSO Safer* in the Arab media associated with conflicting/warring parties?

2.   How is 'environment' represented in the corpus?

3.   What psychological and linguistic manipulative strategies are employed by the media to represent the 'other'?

A considerable body of academic research has been conducted on ecological discourse. A wide range of ecological activities, issues, and catastrophes have been examined to determine the articulation and treatment of ecological and environmental issues in media and advertising. This study makes no attempt to survey this vast field. Instead, this study highlights a few representative findings and illustrates some of the key themes and methods involved.

2. Literature Review

The role of language systems in discussing environmental issues has been investigated in several studies. Such research illustrates the involvement of language systems in constructing, or at the least shaping viewpoints on ecological issues (Fill & Muhlhausler, 2006). Yuniawan, Rokhman, Rustono and Mardikantoro (2017), for instance, examined the impact of linguistic features of green discourse in

mass media on the attitudes of audiences towards environmental issues. If green discourse is constructive, then the audience's environmental attitude and actions are also constructive. In contrast, if green discourse tends toward destructive and exploitative language, people's attitudes and actions toward the environment also become more destructive and exploitative. The representation of ecological and climate change issues in Indonesian President Joko Widodo's speech at the United Nations Climate Change Conference (COP21) in 2015 was examined in a recent study (Mansyur et al., 2021). The findings of the study showed that the president adopted a 'prosaic, environmental problem-solving, ecological ideology.' This 'beneficial discourse' should be widely disseminated to raise awareness of language usage in relation to ecological issues and concerns. Other studies have investigated the use of linguistic aspects such as euphemisms, abstraction, the absence of agency, nominalization, and passivization in environmental texts (Gerbig, 1993); environment-related issues in children's literature (Boudreaux, 2006); middle school environmental education (Schleppegrell, 1996); and environmental texts in English-language textbooks (Mliless & Larouz, 2018). Another aspect of eco-linguistic discourse present in the literature is that of lexical choices, their implications and associative meanings. Drawing on critical discourse analysis (CDA), Goatly (2002) investigated the representation of nature in the *BBC World Service*'s radio broadcasts. A computational collocation tool was used to investigate the collocability of environmental lexical items in the COBUILD Direct/Bank of English *BBC World Service* sub-corpus. The examination of the participants, according to Halliday's systemic functional grammar, showed that nature is frequently marginalized using the passive term 'environment' rather than involved as a participant. When examining the power relations present in a sample of clauses, the study found that among ten natural objects, weather, and disease were the most powerful and plants and minerals the least, as the latter were rarely used as participants in the clauses. The analysis of typical collocates of natural objects in the corpus indicated that economics, politics, and warfare are more important than nature, which is largely viewed as an exploitable and passive object. Similarly, Heuberger (2007, 2008) examined how the anthropocentric perspective, that humans are more valuable than nature, is manifested in English and German. Both studies examined common anthropocentric and speciesist lexical constructions in English. They found that discourse about animals abounds with euphemisms, distancing techniques, and principles of utility. The studies underscored the fact that although the importance of unbiased language has been realized in race and gender issues, it should also be avoided in discourse about other species. In another study, Stamou and Paraskevopoulos (2008) attempted a CDA of a visitor's book at Dadia Forest, a Greek nature reserve, to determine how protective action is represented in ecotourism. The analysis of vocabulary, syntax, and other linguistic features such as ergativity, aspect, and illocutionary acts showed that visitors were generally not well-acquainted or concerned about the protection action undertaken for the reserve. The polysemous aspects of the term 'biodiversity' and its various ideological and economic implications, as well as the presuppositions of certain metaphorical and collocational expressions, were also investigated (Stibbe & Zunino, 2008).

The systemic functional linguistics (SFL) theory proposed by Halliday was also used to analyse the ecological discourse in the reports of the 19th National Congress of the Communist Party of China (Zuo, 2019). Similarly, Haig (2001) employed SFL and CDA in the analysis of eco-linguistic discourse associated with Japanese whaling and the campaigns of Greenpeace International against it. According to Haig (2001: 219), "language not only reflects and records but also shapes, distorts and even creates realities, both cultural and natural". Using Fairclough's (1992) CDA framework (Fairclough, 1992) and Halliday's SFL theory (Halliday, 1985), Garlitos (2020) investigated the ideological representations in eco-news reports in Filipino dailies. Nature is portrayed as the culprit of destruction and the authorities as the eco-warriors. In other contexts, humans are portrayed as helpless and defenseless, while the authorities are powerful and influential, and plants and animals are viewed as commodities.

Corpus linguistics as a research method has also been employed in critical analysis of ecological discourse. It has been used in the analysis of corporate annual environmental reports, such as those from China's Three Gorges Corporation (Gong, 2019). Similarly, Poole (2016) used computational tools for wordlists and parts of speech (POS) and semantic tag analysis in a study of an international company's proposal to build a copper mine in the Santa Rita Mountains of Arizona, USA, and the response of an environmental advocacy group to the proposal. The corpus-aided analysis showed how the proposal placed humans in a position of dominance over the environment. The corpus was abundant with linguistic features that perpetuate "a dominant and ultimately destructive cultural discourse" (Poole, 2016:577). The discourse of the advocacy group, on the other hand, called for responsible environmental stewardship, promoting nature's aesthetic value.

This study differs from the above studies in several aspects. Firstly, it focuses on an analysis of ecological discourse related to an ongoing environmental crisis which has received little or no research investigation. At the time this study was conducted, it was the first to include an analysis of ecological discourse in Arabic. There is a dearth of eco-linguistic studies in comparison to those conducted on Arabic language forensic, political, or commercial discourse. Additionally, this study employs an eclectic approach that draws from critical discourse analysis, systemic functional grammar-- especially the transitivity and appraisal systems-- as well as manipulation strategies (Blass, 2006). The combination of these approaches not only provides a method for systematic analysis of ecological texts in Arabic, but also raises awareness of the ideologies deployed in those texts. Finally, processing a bulk of online texts from various media websites would not be possible without the use of computational tools. This study has therefore used a corpus-assisted discourse analysis approach to explore the various generic conventions in ecological texts in Arabic in a large-sized corpus.

3. Critical Discourse Analysis

Discourse analysis can be attempted from different perspectives. According to Gee (1999:8), some discourse analysts examine the structure of language to determine how it creates meanings in specific contexts, while others investigate the content of the language being used, and the various themes or issues deployed within it. The latter is known as critical discourse analysis (CDA). It is concerned with

the relationship between language, power, ideology, and society (Van Dijk, 1998). This method provides a qualitative analysis of texts, taking into consideration a text's political, social, cultural, and historical contexts (Wodak, 2001a, 2001b). Language, according to CDA, always has some implications relating to the external world. CDA is mainly concerned with how language and discourse are used to achieve social goals and how this plays a role in social change or maintenance (Bloor & Bloor, 2007:2). As Fairclough, Mulderrig and Wodak (2011) argue, CDA is a "problem-oriented interdisciplinary research movement, subsuming a variety of approaches, each with different theoretical models, research methods, and agendas. What unites them is a shared interest in the semiotic dimensions of power, injustice, abuse, and political-economic or cultural changes in society" (Fairclough et al., 2011:356).

Hence, CDA can uncover forms of bias, inequality, dominance, and how they are produced and maintained (Van Dijk, 1998). It also demonstrates the relationship between "linguistic-discursive practices" and "socio-political structures of power and domination" (Kress, 1990:85). Language is no longer viewed only as a means of information transmission; rather, it is the medium through which a writer or a speaker influences and controls the minds of recipients; he/she may use language to maintain political power or to create, support, strengthen, and legitimize an ideology (Rogers, 2004:7).

This study uses CDA as a way of examining the language Arab media have used to report on the *FSO Safer*, as well as power relations and ideologies deployed in their coverage. In doing so, this study will reveal how an environmental issue has been represented in the media over a time span of three years, and how the *FSO Safer* has been politicized and depicted in the mainstream media by considering the contextual backgrounds of a selection of Arabic-language media outlets. To investigate the representation of the environment in this study, an analysis of some lexico-grammatical aspects of the media texts under investigation were conducted. The transitivity system (Halliday, 1985) and in particular the common process types present in the clauses and sentences of the texts may clarify the ideological stances of participants. Transitivity is the grammar of experience, which provides a system to express experiences, ongoing events, and thoughts (Halliday & Matthiessen, 2004). The transitivity system includes six types of processes, as shown in Table 1.

Table 1. Process types in clauses (Halliday, 1985:131)

Process type	Category Meaning	Participants
material: action event	'doing' 'doing' 'happening'	Actor, goal
behavioural	'behave'	Behaver
mental: perception affection cognition	'sensing' 'seeing' 'feeling' 'thinking'	Senser, Phenomenon
Verbal	'saying'	Sayer, target
relational: attribution identification	'being' 'attributing' 'identifying'	Token, value Carrier, attribute Identified, identifier
Existential	'existing'	Existent

Other components of the transitivity system in systemic functional linguistics are participants and circumstances.

An eco-linguistic analysis of Arab media texts about the *FSO Safer* should not ignore the manipulative strategies undoubtedly employed by some media to beautify 'the self' and tarnish 'the other', thus influencing the minds of audiences and aligning with a particular ideology. Some media resorted to a myriad of linguistic and psychological methods of verbal and nonverbal influence to affect the cognitive process of their audiences. In this sense, Blass's taxonomy of manipulation strategies (Blass, 2006) is useful. The taxonomy includes strategies such as lying, omissions, commissions, and manipulation through propaganda (Blass, 2006). An analysis of the attitudes in the language employed by the media aligned with conflicting parties towards the other can be performed using the attitude appraisal system, which is associated with "our feelings, including emotional reactions, judgments of behaviour and evaluation of things" (Martin & White, 2005:35). Although a detailed appraisal analysis is beyond the scope of this study, a reference to the three categories of attitude; namely, affect, judgement, and appreciation, are attempted in the analysis of emotive language and manipulation strategies.

4. Corpus Linguistics (CL)

The combination of CDA and CL in an attempt to conduct a context-based analysis of large quantities of texts is a common research methodology and has been described as "methodological synergy" (Baker et al., 2008). CL is concerned with the study of linguistic phenomena through the investigation of a large collection of machine-readable monolingual or parallel texts, or corpora. Corpora are utilized in a variety of research fields, including the descriptive study of a language's syntax, prosody, and language learning, to name a few. The advanced corpus desktop and cloud-based software have made it possible to analyse millions of texts more systematically, professionally, and objectively. Once a corpus is compiled, a researcher can make use of various linguistic techniques, including wordlists or frequency lists, keywords, collocations, n-grams, concordances, and text-type analyses.

In this study, wordlists, n-grams, and concordance techniques were used to locate the most frequent themes in the coverage of the *FSO Safer* in Arab and international Arabic-language media. Producing frequency lists of words and sequences of tokens, wordlists, and n-grams (i.e., lexical bundles) gives an idea about the various themes and process types in the corpus. Based on the frequency of lexical

bundles, the concordance tool can be used, which neatly presents the data, allowing the researcher to study lexical items and bundles in context. The corpus can therefore assist the researcher to attempt qualitative and quantitative analyses of data. Clicking the highlighted item(s) in a concordance line reveals various behaviours, beliefs, and ideologies deployed in discourse. Unlike manual analysis, this method enables discourse analysts to uncover discourse traces (Sunderland, 2004) and evidence of potentially negative, positive, or neutral discourse prosodies (Stubbs, 2001). It also provides a clearer understanding of the historical, political, and socio-cultural contexts of the issues under discussion.

5. Methods

This corpus-assisted study analyses media news reports about the *FSO Safer* from the first *Aljazeera* report on the tanker in 2019 until June 2022, when the UN emergency plan was announced. This study is therefore based on relevant texts on the internet. *Sketch Engine* was used to create the corpus as follows:

1. Several seed words were used to find relevant texts including 'Safer', 'catastrophe', 'environment', and 'Yemen', as shown in Figure 1.
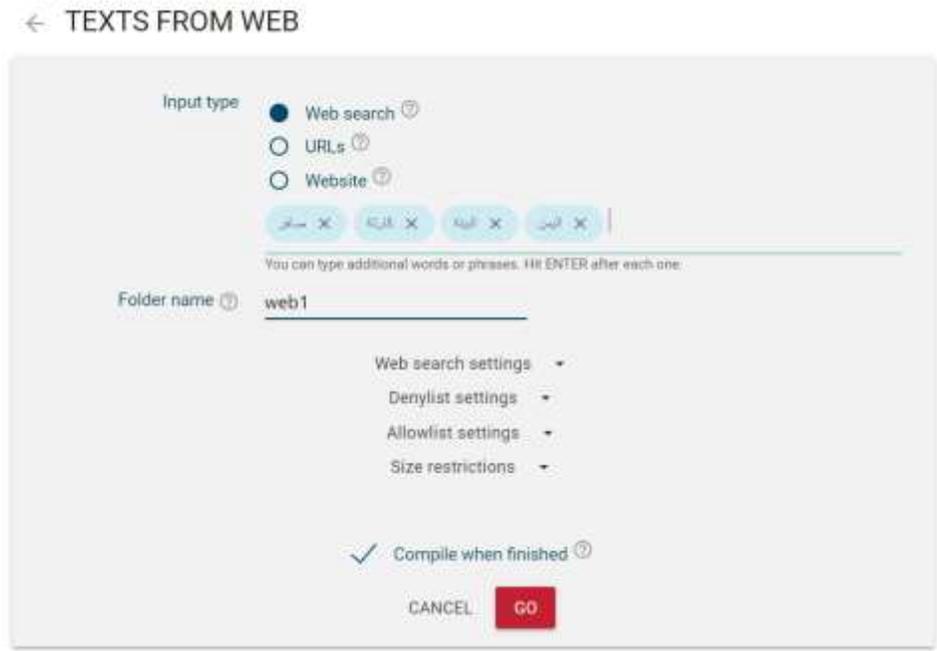

Figure 1. Seed words of the *Safer* media corpus

2. The search results returned a considerable number of websites related to *FSO Safer* and other environmental issues. Websites relevant to *Safer* were selected, as shown in Figure 2.
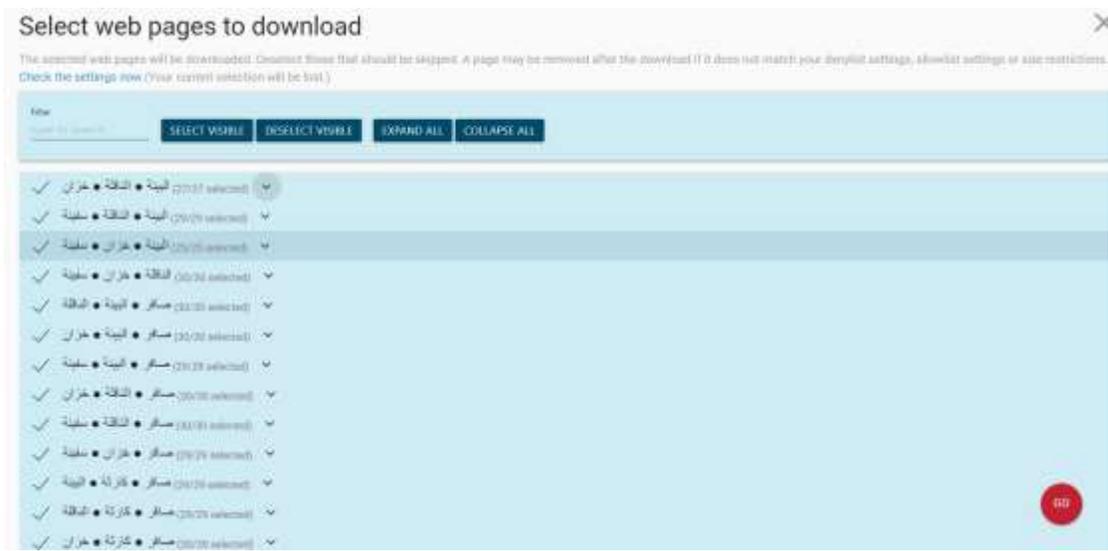

Figure 2. Selected websites for the *Safer* media corpus

The corpus includes texts from various regions and media outlets. It represents various ideologies and perspectives. It also includes texts from Arab news channels such as *Aljazeera*, *Al-Arabiya,* and *Sky News*, as well as the media of the coalition-backed Yemeni government, the Houthi movement in Yemen, and the United Nations. The corpus also includes content from *CNN* and the *BBC* in Arabic. Figure 3 gives the frequency and domain names of the news reports.
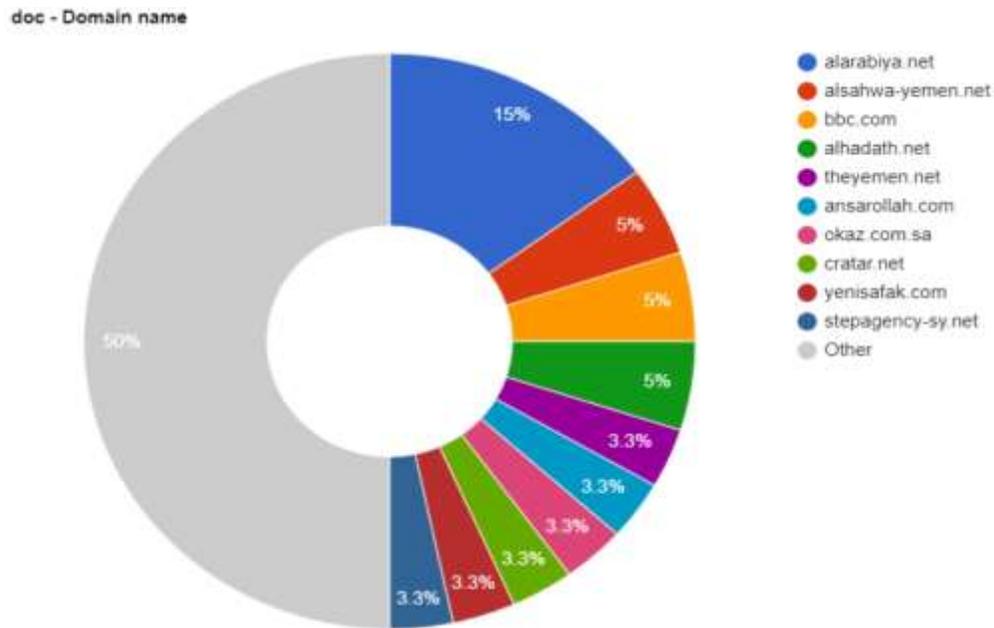

Figure 3. Frequency and domain names of news reports

To examine how *Safer* is represented in Arabic media, *Sketch Engine* features such as wordlists, n-grams, and concordance tools were used. These features facilitated the identification of thematic categories in the corpus and enabled the unpacking of any ideological implications present. The concordance lines of some keywords such as *bīʾah* were also exported to *ATLAS.ti*, a computer-assisted qualitative data analysis software, for additional coding.

6. Analysis and Discussion

6.1 The Representation of al-bīʾah (environment)

Using the operator [*بيئ*] to locate the various forms of the term *al-bīʾah* (environment), 157 hits were produced, including words such as *bīʾah* (environment), *bīʾayah* ([feminine adjective] environmental), and *bīʾaī* ([masculine adjective] environmental), among others. Figure 4 shows the frequency of environment-related words in the corpus.
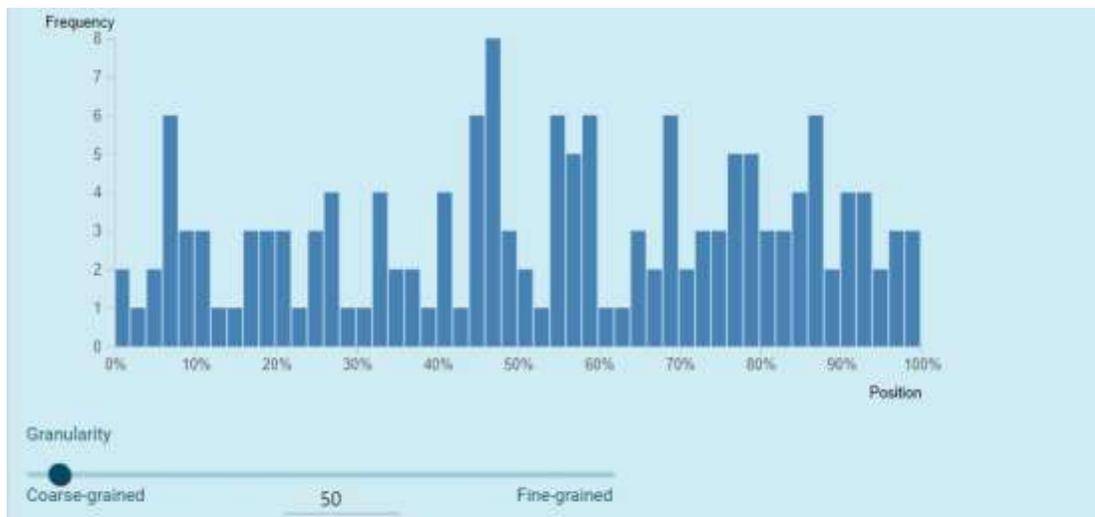

Figure 4. Frequency of environment-related words

All sentences that included the above words were exported to *ATLAS.ti* to codify the various transitivity aspects in the clauses and their participants. The frequencies of the process types in the concordance of *al-bīʾah* are shown in Figure 5.
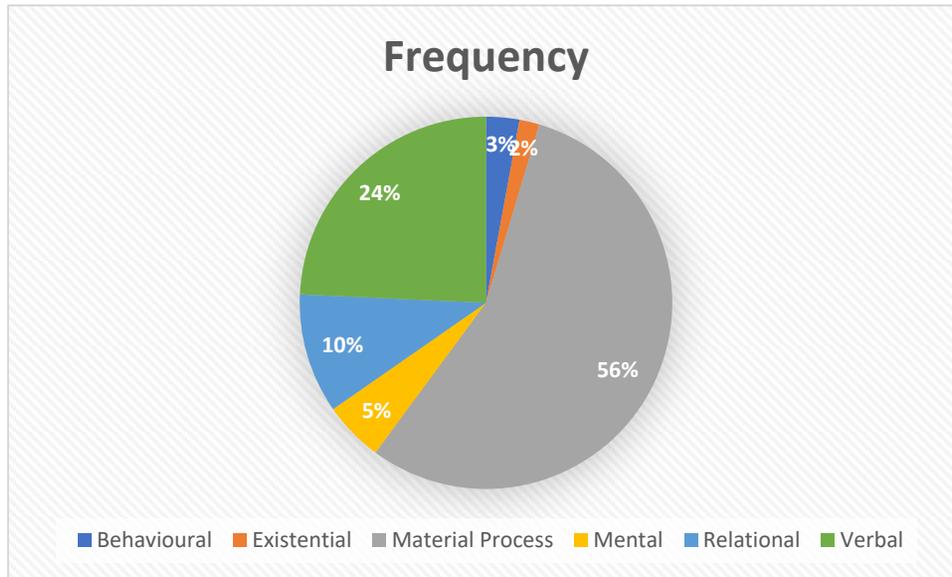

Figure 5. Process types in the concordance of *bīʾah*

As Figure 5 shows, material processes are by far the most frequently used type in the corpus. This indicates that the Arab media associated with conflicting/warring parties, as well as the UN and more neutral media, endeavour to impart information about the *FSO Safer* to audiences that are perhaps unfamiliar with the ship and its related crisis. Although the media reported on actions and events and the participants involved in them, some of these actions and events are far from true. Some examples of material processes are *tasarub nifṭ ṣāfir sa-yudamir al-niẓām al-bīʾī fī al-baḥr al-ʾaḥmar* (The leakage of oil from the *Safer* will destroy the ecosystem in the Red Sea), *alġām āl-ḥawṯī sa-tusabib kāriṯah bīʾayah ʿālamiyah* (The mines of the Houthis will cause a global ecological catastrophe), *qaṣf al-taḥāluf li-rʾas ʿīsā sa-yudamir al-bīʾah al-baḥriyah fī al-yaman wa ʿidat diwal* (The coalition's air strikes on Ras Isa will destroy the marine life in Yemen and many other countries).

Relational processes, at ten percent, occupy the third category of processes. They are widely used in the description of people and objects. Hence, the news reports issued by Arab media were devoted to the description of the *Safer*, the attributes of the involved parties and participants, or the identification of entities. The frequent use of relational processes may be commensurate with the nature of news reports and media coverage which solely aim to provide facts about objects, people, and actions. An example of a relational process recurrent in the corpus is *inqāḏ ṣāfr inqāḏ lil-ḥayāt al-baḥriyah min kāriṯah muḥqaqah* (Saving the *Safer* is saving the marine life from a certain catastrophe). The concordance of the word *bīʾah* and its forms shows that the verbal processes are 42 in number (24%). This indicates that the media coverage on the *Safer* abounds with what people, officials, ecology activists, and organizations reported about the past, present and, perhaps the future of the vessel. In all verbal clauses, one or more of the above actors were presented as the sayer, who either articulated the impact of the catastrophe themselves or described why others may be responsible for it. A distinctive feature of a verbal process resides in the fact that it can act as a projected clause in which "one clause projects a second clause, either paratactically or hypotactically as reported speech" (Haig, 2011). Behavioural, mental, and existential processes were less common in the corpus. Although there were some references to the stubbornness and arrogance of some parties in response to the crisis, the behavioural processes constituted 3% of the process types. Mental processes constituted 5%. Although the scale of catastrophe is a matter of speculation, it has been presented as facts, which may explain the low occurrence of mental processes. The media, in an endeavour to mobilize resources or to blame others, presented the thoughts of participants and experts on the ground as facts since the beginning of the crisis in 2018.

In terms of transitivity participants, the main actors are the *Safer*, the Houthis, the Yemeni government, and the UN, among others. The actions related to the *Safer* have been described as destructive to the environment in clauses where the participants are the Houthis or the coalition-backed Yemeni government. In the clauses where the UN is the actor or speaker, the actions described are peaceful and lifesaving. As for the third part of the transitivity system (i.e., circumstance), the corpus contains numerous references to location circumstances (whether spatial or temporal). This emphasizes the importance that all parties place on establishing their accounts of what will happen in time and space.

The analysis of transitivity structures clearly shows that although all participants speak about the environment and the Red Sea ecosystem and measures to save it, human beings are represented as the most active of beings; those who think, do, and act in the world and those who behave and speak. Inanimate objects, on the other hand, are represented passively, as having things done to them (Halliday, 1990:194). The Red Sea is not represented as actively doing things, even though it provides food and sustenance to millions of people.

The environment, the ecosystem, the Red Sea, various categories of animals (e.g., fish, birds, aquatic animals), and other lexical items

from nature are commonly presented as acted upon rather than as actors. Halliday correctly notes that "The grammar does not present inanimate objects as doers…[which] makes it hard for us to take seriously the notion of inanimate nature as an active participant in events" (Halliday, 1990:194). Even though the animate active participants and actors in the clauses are almost the same, a variety of labels or epithets have been used to describe some of the participants and their actions. This kind of over-lexicalization generally indicates the promotion of a particular ideology and highlights areas of intense preoccupation in a discourse.

Another common lexico-grammatical aspect in the discourse about the *Safer* in the Arab media is nominalization, or the use of nominal clauses and sentences. While nominalization, or the representation of a process as a noun as though it is an entity, is common, it can also be used in a manipulative manner. In other words, nominalization can be used to remove or obscure agents in ecological texts, obfuscate causality, or remove the time at which processes take place. Hence, readers and listeners are distanced from the reality of the event or action described (Halliday & Martin, 1993:3).

Neutral media, for instance, in its coverage on the UN plan to save the *Safer*, used clauses such as *al-ḫuṭah al-umamiyah mutaʿaṯirah* (the UN plan is hindered) but the media never disclosed who was responsible for the obstruction of the plan. Similarly, there are many references to *tawquf al-aʿmāl fī al-safīnah wa manʿ tašġīlahā wa manʿ ʾifrāġ mā bihā min maḫzūn nifṭī lil-ʿām al-ḫāmis ʿalā al-tawālī* (suspension of work on the ship, including operation and offloading of the crude oil it contains for five consecutive years), which left readers wondering who stopped the ship from operating for five years.

However, the use of nominalization in the pro-Houthi and pro-coalition media reports intentionally foregrounded agency and causality. For instance, the above example appeared in coverage by the pro-Houthi media with the addition of *ğarā ʾistihdāf ṭayarān al-ʿidwān maḫṭat r'as ʿīsā* (due to the coalition's airstrikes on Ras Isa station). This indicates that the cause for suspension of work and maintenance on the *Safer* was because of the coalition airstrikes on Ras Isa station, where the ship is moored. In a similar vein, the coalition media stated that the Houthis and their stubbornness were the cause of the non-maintenance: *ʿadam ḫuḍūʿ al-safīnah lil-ṣiyānah minḏu ʿām 2015 maradahu taʿanut al-ḥawṯī* (the fact that the ship has not undergone any maintenance since 2015 is attributed to the stubbornness of the Houthis).

Hence, texts do not merely give information, but sometimes attempt to persuade listeners or readers of their representation of reality.

6.2 Thematic Analysis of the Corpus

Examining the top frequent lexical items in the corpus indicated that different thematic categories are prevalent. These themes include the *Safer* tanker itself, the scale of catastrophe, the representation of involved parties in the crisis, the UN mitigation plan, the politicization of the crisis, echo-jihad, and sectarianism, among others. To explore these various themes in the corpus under investigation, all concordance lines of key words were considered (Baker, 2010). These themes are discussed below.

6.2.1 Safer

The word *safer* was repeated 531 times in the corpus, as shown from the collocates of the word in Figure 6.

Figure 6. Collocates of the *Safer* in the corpus

As Figure 6 shows, the media focuses on the history of the *FSO Safer*, and its current situation. The concordance lines of the word show that the *FSO Safer,* originally known as *Esso Japan,* was built as an ultra-large crude oil carrier by the Hitachi Zosen Corporation in Japan, in 1976. The gross capacity of the tanker was 192,679 tons at the time of manufacturing and its deadweight tonnage was approximately 406,640 tons. The fact that the tanker was converted into a floating storage and offloading unit with a capacity of about 3 million barrels of oil and given the name of *Safer* in 1986, was repeated in various contexts of the corpus. The location of the ship, its ownership, and its current load were also emphasized in the coverage. All media outlets stated that the ship is located approximately 7 kilometres off the coast of Yemen. It is owned by Safer Exploration and Production Operation Company (SEPOC). Since 1988, it has been used to store and export oil from the oil fields in Marib, Yemen. The media also stated that while all *FSO Safer* production and export operations have been halted because of the ongoing conflict in Yemen, it is estimated that nearly 1.5 million barrels of crude oil remain onboard. To foreground the seriousness of the matter, the media all emphasize the fact that the *Safer* carries four times the amount of oil that was aboard the *Exxon Valdez* when it ran aground in Alaska's Prince William Sound in 1989.

6.2.2 Scale of Catastrophe

The *FSO Safer* was described as a ticking time bomb in many contexts of the corpus. The *Safer* as a bomb was repeated 41 times in the corpus with 0.0866% of the whole corpus, as Figure 7 illustrates.
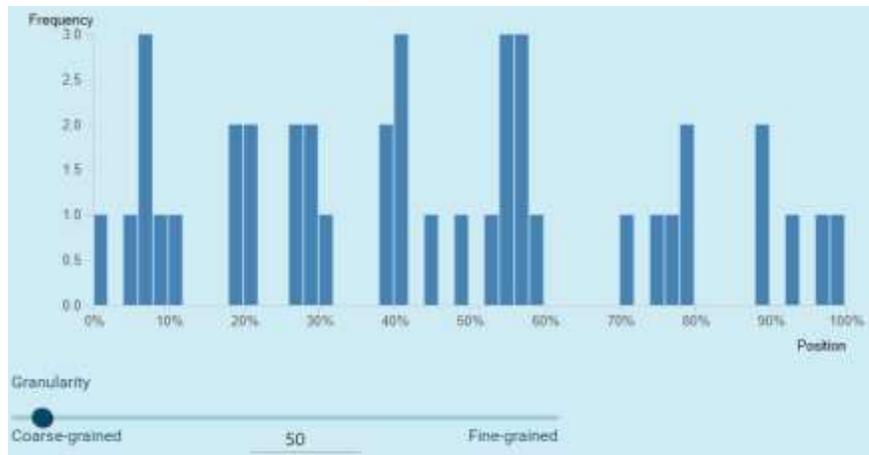
Figure 7. The distribution of *Safer* in the corpus

The *Safer* has been described as a time bomb that is about to explode, and its poisonous shipment is leaking into the Red Sea (nabd.cc). This time bomb is threatening Yemen, the Red Sea region, and the world (cratar.net; skynewsarabia.com; albayan.ae; ansarollah.com).

The media associated with the Yemeni government (e.g., haberler.com) reported that the Houthis left the ship in this condition because they intend to detonate it if the government forces resume their military operations in Al-Hudaydah Governorate. The government has described it as Yemen's floating bomb and an imminent environmental disaster that threatens the entire Arabian Peninsula (mot.gov.ye). The United Nations shared the same concerns and warned that the *Safer* is a time bomb that could explode at any moment and cause an environmental disaster, affecting several countries (aljazeera.net).

The scale of environmental damage in the event of a spill was reported extensively by the media. Searching the corpus for the collocation *kāriṯah bīʾayah* (environmental disaster) returned 93 hits (0.1965%) of the corpus as shown in Figure 8.
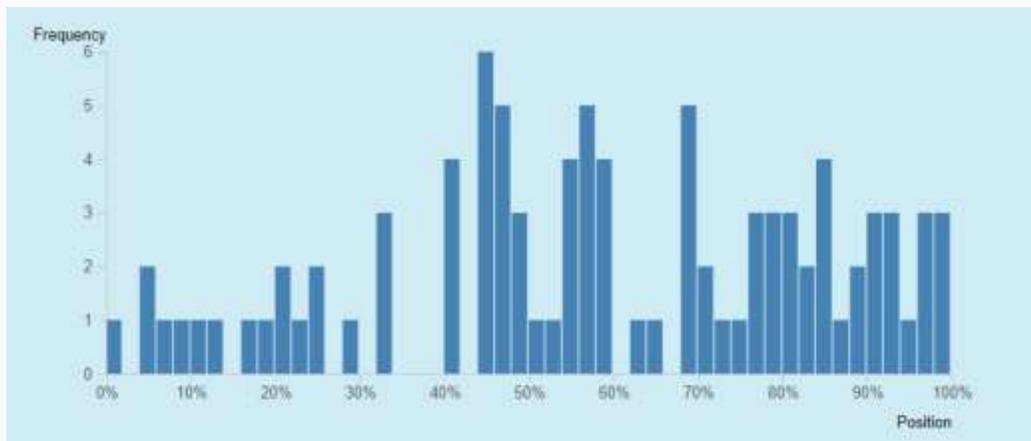

Figure 8. Frequency of *kāriṯah bīʾayah* (environmental disaster) in the corpus

The corpus clearly indicates that all media reports agree that any oil spill from the *FSO Safer* would lead to a major humanitarian and environmental disaster. The spill will destroy the ecosystems of the Red Sea, including bird habitats, coral reefs, and mangrove forests. In addition, water, beaches, and sediment will be contaminated with toxic substances. It will be a world catastrophe that reaches beyond Yemen, at least as far as the Suez Canal.

In the event of a spill or explosion, the *Safer* will have a significant destructive impact on local communities in Yemen who depend on international humanitarian aid. In addition, the spill would severely harm the livelihoods of people who rely on fishing and sea resources for sustenance and income. It is estimated that two hundred thousand jobs would be lost immediately. The communities along the coastal area could be exposed to hazardous and life-threatening substances.

Moreover, the spill would cause significant damage to fisheries along the Red Sea coast, resulting in substantial economic losses to local fishing communities. The incident could also suspend operations at Al-Hudaydah and Saleef seaports for at least six months. The former is particularly essential for importing food, fuel, and medical supplies into Yemen, a country where 19 million people are reliant on international humanitarian aid. Should the aging tanker disintegrate, it is likely to cause an oil spill bigger than the *Exxon Valdez* in Alaska in 1989 or the *Amoco Cadiz* in France in 1978. The cost of cleaning it up could total billions of dollars.

A serious economic issue resides in the fact that a massive oil spill would disturb international trade and shipping through the Bab al-Mandab Strait to the Suez Canal, which could cost billions daily. The potential economic consequences of the disaster are highlighted in many news reports in the corpus, as indicated from the statistics of the word *iqtiṣādiyah* (economic) in Table 2.

Table 2. Frequency of *iqtiṣādiyah* (economic) in the corpus

Number of hits	25
Number of hits per million tokens	528.35
Percent of whole corpus	0.05284%
Percent of the first result	100.0%
Corpus size (tokens)	47,317

Undoubtedly, the environmental, economic, and humanitarian consequences would be felt throughout the region. The impact of the disaster would ripple beyond Yemen and harm other countries on the Red Sea including the Kingdom of Saudi Arabia, Djibouti, Eritrea, Somalia, and Egypt.

6.2.3 The UN's Response to the Disaster

The corpus refers to a recent UN response to the disaster. The plan was mentioned 104 times, as the concordance lines in Figure 9 show.

Figure 9. Concordance lines for the UN response plan

The concordance lines in Figure 9 indicate that the UN plan is composed of two concurrent phases. Once the first phase of the plan is initiated, a permanent replacement for the aging tanker would be installed within 18 months. Concurrently, the oil would be offloaded from the *FSO Safer* to a secure temporary vessel over a period of four months. Upon completing the transfer of oil, the *Safer* would be towed away and dismantled for salvage. The corpus shows that the Houthis, the Yemeni government, as well as key stakeholders all support this. According to the UN, the emergency transfer would cost $80 million; hence the success of the operational plan is contingent on funding. To secure funds, a charity event in the Hague was hosted by the Netherlands and the UN on May 11, 2022. The event was positively received by many countries, which gives a glimmer of hope that the *Safer* will be safely decommissioned. However, according to the UN, the coordinated plan should take place before October and the advent of fall, when high winds and volatile weather could make the operation more dangerous and increase the risk of the possible breakdown of the tanker. The concordance lines have also shown that the UN plan, despite its significance, came under unjustifiably severe criticism from almost all conflicting parties.

6.2.4 Echo-jihad

Debate about the *Safer* was not confined to politicians and international environmental organizations and activists. It also has drawn the attention of Islamic scholars who have addressed the issue with great concern from the pulpits of the mosques. The corpus has shown that preachers have called on all parties to save the environment from a looming disaster. Preachers have reminded their congregations that God has entrusted humankind with the duty of maintaining and cultivating the Earth. Human beings are therefore obliged to safeguard and preserve the environment. As God's vicegerents on earth, humankind is tasked with the preservation of wildlife and marine life. The Houthis, the coalition-backed government in Yemen, and neighbouring countries are all religiously obliged to take measures to offload the *Safer* and save the country, the region, and the people. This is a shared obligation that requires everyone to help alleviate the afflictions and sufferings that plague the local Yemeni communities, plants, and marine life. Echo-jihad in the corpus is exhibited through various instances of intertextuality. That is, preachers supported their arguments with Qur'anic verses and various hadiths. One preacher refers to the prophetic hadith: "Anas ibn Malik reported: 'There was a tree in the road that used to harm people, so a man came and cleared it from the road.' The Prophet, peace and blessings be upon him, said, 'I have seen him enjoying himself in its shade in Paradise'" (Musnad Aḥmad 12332, n.d.). The preacher continued his argument, saying if this is the case in easy matters like this, how about saving millions of people and marine life in many countries? Preachers reminded their communities of the Beirut harbour catastrophe that caused immense humanitarian, ecological, and economical losses in Lebanon. The corpus has also shown that preachers emphasized that any negligence in maintaining the environment is a kind of corruption. As God says in the Qur'an: "But whenever he prevails, he goes about the earth spreading corruption and destroying [man's] tilth and progeny: and God does not love corruption" (Qur'an 2:205).

Preachers, according to the corpus, have pointed out that God forbids extravagance related to natural resources, including wasting them or benefiting more than the need. This is considered corruption because it leads to the waste and depletion of natural resources. Another preacher considered environmental pollution as corruption of the earth, which is likewise forbidden, as the Almighty said: "And when it is said to them: Do not cause corruption on the earth, they say: We are the reformers. Except that they are the corrupters, but they do not perceive" (Qur'an 2:11-12). Additionally, preachers have referenced many hadiths of the Prophet that motivate the protection of the environment. For example, in the time of war, the Prophet commanded the army during the battle of *Mu'tah* not to kill any women, children, or elderly people. He commanded them not to uproot date-palms, cut down trees, or demolish buildings. Similarly, the corpus abounds with texts that encourage the planting of plants. One of these is a hadith that was reported by Anas ibn Malik in which Muhammad (PBUH), said, "Even if the Resurrection were established upon one of you while he has in his hand a sapling, let him plant it" (Musnad Aḥmad, hadith number 12902, n.d.). The corpus also includes texts and hadiths that forbid unnecessarily hunting animals, whether wild or aquatic. Muhammad (PBUH), said: "Whoever kills a bird in vain, it will come to God Almighty on the Day of Resurrection saying, 'O Lord, that so-and-so killed me in vain and did not kill me for any benefit'" (al-Nasa'i, hadith number. 1865, n.d.).

6.2.5 Politicization of Catastrophe

Even though the potentially negative economic, humanitarian, and environmental impact of the *Safer* is a matter of consensus among experts, environmental protection organizations, international organizations and conflicting parties, the issue has been politicized by the media associated with conflicting/warring parties including the Houthis, the coalition and coalition-backed Yemeni government. The politicization of the *Safer* crisis will be investigated through the representation of these parties and actors in the corpus of this study.

Houthis were represented in the corpus using various labels and names which carry both positive and negative connotations, as Figure 10 shows.
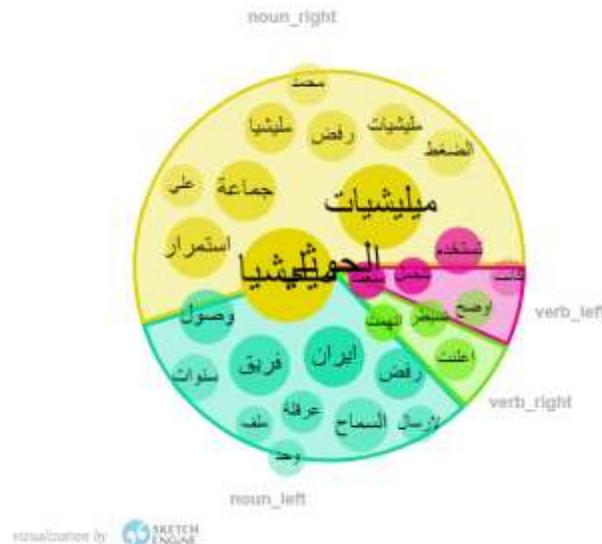

Figure 10. Collocates of *Houthis* in the corpus

The word 'Houthis' is repeated 75 times (0.1585%) in the corpus. In some media reports, the Houthis were represented as a militia who prevented the UN teams from continuing the maintenance of the *Safer*. Allegedly, they created many obstacles hindering solutions to the problem and thus they are fully responsible for the humanitarian cost of the disaster (cratar.net, skynewsarabia.com). The website of the Saudi-based newspaper *Okaz* (okaz.com.sa) stressed the need for immediate and urgent international action to exert more pressure on the Houthi militia to stop its manipulation and political extortion. As for *Step Agency* and *Al-Arabiya* (stepagency-sy.net and alarabiya.net), they claimed that the Houthi militia deployed sea mines in the vicinity of the *Safer*. *Suhail*, on the other hand, reports that the giant tanker has not had any maintenance since the war that the Houthi terrorist militia instigated against the Yemeni state and its institutions in 2014 (suhail.net). The same view is repeated by *Al-Sahwa*, the mouthpiece of the Islah Islamic party in Yemen (alsahwa-yemen.net). In fact, the Houthis have been labelled as militia by many other media outlets including albayan.ae and yemenalghad.net.

In its coverage of the *Safer*, *Aljazeera, Masrgaya*, *Haberler Arabic, BBC Arabic*, and *DW* have all taken a neutral position using expressions such as: Houthis, the Houthi group, or Ansar Allah (Houthis). Their coverage is mainly concerned with the recent agreement of the Houthis to the UN operational plan. UN related media, on the other hand, have identified the Houthis as 'de facto authorities in Sana'a'.

Pro-Houthi media reported an entirely different story, refuting all accusations of the coalition-backed Yemeni government as well as the media affiliated with coalition countries. While anti-Houthis and UN media have used terms such as 'the rebels,' 'militia', and 'de facto authorities', the official mouthpiece of Houthis, (ansarollah.com), used expressions such as 'the Supreme Political Council' and 'the Salvation Government in Sana'a', as shown in Figure 11.

Figure 11. Representation of Houthis in Pro-Houthi media

On the other hand, the coalition and the coalition-backed government of Yemen were described in the Houthis' pro-media as *taḥāluf al-ʿidwān* (the coalition of aggression) 47 times, *ḥakumat al-murtazaqah* (the mercenary government) 12 times, *al-ʿidwān al-amrīkī al-biryṭānī al-sahyūni* (the US-British-Zionist aggression) 12 times, and *ḥukumat al-fanādiq* (the government of hotels) 7 times, among others.

6.3 Manipulation Strategies in the Coverage on the Safer

It is clear from the discussion thus far that the Arab media have employed various strategies to demonize the other and hold them accountable for the crisis, manipulate the minds of their audiences, and convince the local and international community that they are concerned about the looming catastrophe of the *Safer*, leaving no stone unturned to save the environment. The corpus includes several contexts in which the media run by the Houthis, the coalition-backed Yemeni government, and the coalition simply withhold information, and the audience is purposefully prevented from gaining relevant information. This manipulative strategy of omission intentionally prevents readers from acquiring beliefs or facts they might have otherwise been able to establish (Blass, 2006:173). Although the reports in the corpus are all about the *Safer*, the anti-Houthi media called for Arab, regional, and international pressure to be put on the aggressive acts of the Houthi militia, without giving readers any clear evidence of any aggressive acts associated with the *Safer* crisis. As the corpus shows, some news reports indicated that the Houthis threatened to detonate the *Safer*, but they provide no substantial evidence of the threat. In a similar vein, the pro-Houthi media continued to convince their readers that the coalition and the Yemeni government prevented the selling of the crude oil on the *Safer* for the purpose of financing the humanitarian needs of the Yemeni people and to pay the salaries of public sector workers. The truth of the matter is that the coalition-backed government repeatedly requested the same, but the Houthis, who are in control of the *Safer*, are adamant not to share the load (alarabiya.net). Moreover, the Houthi media have never spoken about the contributions made by the coalition to help alleviate the crisis, and the generous financial and humanitarian support provided by Saudi Arabia.

Examples of the commission strategy also appear several times in the corpus. The corpus shows that explicit and implicit commissions are utilized. In many contexts of the corpus, the media intentionally employed words and overstatements to give more information than required (Blass, 2006). For instance, this exaggeration device was used by the Minister of Environment of the internationally recognized Yemeni government, who calls for the implementation of international marine-related laws and treaties and for punishing the Houthi militia. Describing the Houthis as *muğrimī ḥarb* (war criminals), *muğrimī bīʾah* (ecology criminals), and *qarāṣinah wa mulawṯī al-bīʾah* (pirates, and environment polluters) shows clearly that the addressor is active, and the main goal is to make the addressees acquire or continue a belief and accept it (Blass 2006: 173). There are also examples of the use of the minimization strategy in the corpus. For example, the media of both parties minimized the significance of financial resources in solving the problem and resorted to mutual accusations. Hence, explicit commission is made by lies, exaggeration, minimization, or half-truths. Implicit commission, on the other hand, arises through implied information. The corpus, for instance, includes some hints that the UN does not require a huge amount of funding to face the crisis, but it wants to save the Houthis.

Additionally, manipulation can be practiced through propaganda strategies such as repetition or emotional appeal (Blass, 2006). The use of repetition as a manipulation strategy is obvious in the corpus. Repeating the same information could lead addressees to think about the information repeated and accept it. The word *kāriṯah* (catastrophe), for instance, appeared 184 times, *tadmīr* (destruction) 8 times, *tawqqaf* (suspension) 12 times, *safer* 531, *al-baḥr* (sea) 244 and *barmīl nifṭ* (barrel of crude oil) 88 times. To project Houthis as actors and as responsible for the crisis, *mīlīšiyā al-ḥawṯī* (Houthi militia) was repeated 18 times, *al-mutamaridīn al-ḥauṯīyyīn* (Houthi rebels) 25 times, and *al-ḥauṯīyyīn* (Houthis) 82 times. In a similar vein, the Houthis, in a bid to blame the coalition repeated the use of *taḥāluf al-ʿidwān* (coalition of aggression) 35 times, *al-taḥāluf* (coalition) 8 times, and *al-ʿidwān* (aggression) 47 times. The UN media focused on the cost of its plan as depicted by the repetition of *al-ḫuṭah al-umamiyah* (the UN plan) 129 times.

It can be argued that the use of repetition as a manipulative strategy is closely associated with the emotional appeal strategy. According to Blass (2006:175), "appealing to the feelings of the addressee is often more easily ready to accept, believe, and act". In the corpus of the study, the journalists, politicians, and activists used this strategy in many positions to stimulate the feelings of their audience. Conflicting parties used strong emotive words to express their attitudes towards the others. Although this study is not mainly concerned with a detailed appraisal analysis of the discourse on the *Safer*, it is useful to acknowledge the attitudes present in the language employed by the media of the conflicting/warring parties towards the other. While the appraisal system of attitude is classified as expressing either positive or negative, the corpus of the study abounds with negative feelings. For the internationally recognized Yemeni government, Houthis are *tuğār ḥurūb* (warmongers), *muğrimī bīʾah* (environmental criminals), and *qarāṣinah* (pirates [-affect/unhappiness]). For the Houthis, the Yemeni government are *murtazaqah* (mercenaries [-affect/unhappiness]) and *ḫawanah* (traitors [-affect/unhappiness]) of the aggressive coalition on Yemen, who are the main culprit behind a looming environmental and economic global catastrophe. The feeling of insecurity is also obvious in the discourse from both sides. For the Houthis, the *Safer* was put on *qāʾimat al-ʾahdāf* (a list of targets of the coalition [-affect, insecurity]) in an arrogant manner. On the other hand, the Yemeni government calls for international, regional, and Arab pressure on the Houthis because of *ʾaʿmālahum al-ʿidwānīyah* (their aggressive acts [-affect, insecurity]) and their repeated threats to detonate the tanker.

In a similar vein, the feeling of dissatisfaction is also clear. The coalition and the government are not satisfied with what they called the manipulation of *al-mīlīšīyāt al-irhābīyah* (terrorist militia [-affect, dissatisfaction]) who they claim used the tanker as an instrument for political blackmail. Houthis, on the other hand, are dissatisfied with the *al-ḫawanah* (traitors [-affect, dissatisfaction]) and *ghatrashat* (arrogance [-affect, dissatisfaction]) of the aggressive coalition and its mercenaries that intentionally prevent the supply of mazut needed for the maintenance of the tanker. The judgment appraisal system appears to have been employed by the media to evaluate the ethics, morality, or social values of the behaviour of the Houthis, the coalition-backed government, and coalition countries. The media of these conflicting parties used judgmental language to expose the other's inveracity. The corpus is full of words such as bad, evil, dishonest, deceitful, immoral, lying, snobby, and selfish, among others. All of the above are social sanctions (Martin & White, 2005), the performing of which is detrimental to both people and marine ecosystems in Yemen and other neighbouring countries.

7. Conclusions

This corpus-based study has investigated the ecological discourse on the *FSO Safer* in Arab media. It has explored the representation of issues related to the environment in the media associated with the conflicting/warring parties as well as more neutral media. The analysis of the concordance lines of the word *bīʾah* and its lemmas showed that material processes topped the list of processes in the corpus. The analysis of transitivity structures clearly showed that even though all participants speak about the environment and the Red Sea ecosystems and measures to save them, human beings are represented as the most active of beings; those who think, do, and act in the world and those who behave and speak. Inanimate objects, on the other hand, are represented passively, as having things done to them. The corpus-assisted eco-linguistic discourse analysis showed that certain themes are prevalent in the media coverage of the *Safer,* including the history and the current situation of the vessel, the scale of potential catastrophe, the UN emergency plan, echo-jihad, and sectarianism. The 'us' vs 'them' ideology appears regularly in the corpus. The media of conflicting parties have sometimes diverted attention from the incident to tarnish the image of the other. While the pro-Houthi media projected themselves as a legitimate, salvific government that cares about the Yemeni people, the anti-Houthi media presented them as a militia that does not care about the sufferings of the Yemeni people or the repercussions of the *Safer* crisis. In a similar vein, while the coalition media presented coalition countries as philanthropists and close brothers of the Yemeni people, and as those trying their best to save the country and its people from any marine

catastrophe, the pro-Houthi media presented the coalition and the government backed by them as arrogant, and as using the *Safer* issue as a political instrument, refusing any maintenance to the tanker.

The media have employed several psychological and linguistic strategies to manipulate their audiences and to align them with their ideologies. Omissions, commissions, emotional appeal, repetitions, half-truths, lies, and the use of negative attitudinal language are some of these strategies.

This study has some limitations. It has mainly focused on the main *topoi* in the coverage on the *Safer*, the representation of environment in a corpus of online media, and the manipulation strategies used by them. A detailed analysis of the transitivity and appraisal systems in the corpus will unravel additional features of ecological discourse in Arabic and some of the ideologies deployed therein. Further studies could investigate some of the *topoi* in the corpus in greater depth. For instance, exploring echo-jihad in the context of environmental issues such as the *Safer* and the Lebanon harbour explosion could be done. A detailed study on the psychological and linguistic manipulative strategies in ecological discourse is also needed.

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