Greening Gray Beirut: A Cognitive Eco–linguistic Approach to Digital Discourse

 تخضير بروت الرمادية: تحليل لغوي بني معرفي للخطاب الإلكتروني

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المستخلص

يهتم علم اللغة البيئى بدراسة العلاقة بين اللغة وال🌍 والتغيرات البيئية والتغيرات المناخية، ومن التغييرات البيئية تقول البيئة من الأخضر إلى الرمادي نتيجة لاختلافات الحدائق والملاحة الأخضرية التي هي حق من حقوق أفراد المجتمع. هذا ماتتناوله خطاب د.امرأ بيولا، على مؤتمر تيد الإليكتروني الذي تمت من خلاله عرض ومناقشة موضوعات سياسية، إجتماعية، ولغوية...أخ بلغات مختلفة. د.امرأ مواطن لينانى تتحم بقضايا مجتمعها بيورون وهم من رائدات الحملة الإجتماعية البيئية التوعوية لتحويل بيورون من الرمادي إلى الأخضر. فمن خلال تطبيق منهج آران ستيب (2015) للدراسات اللغوية البيئية، الذي توضح فيه أن التحليل اللغوي البيئي يعتمد على: تطبيق النظريات اللغوية المعرفية، تحليل الخطاب النصي متعدد الوسائط، المعرفية الإطارية والقواعد اللغوية الوظيفية للكشف عن وجهات النظر وهو مأسماه (القصص التي نعيش بها) وهي هياكل معرفية في عقل أفراد المجتمع (الإدراك الإجتماعي). وهي بالنهاية تؤثر على علاقة الأفراد ببعضهم البعض وعلاقتهم بعناصر البيئة الأخرى من حيوانات وأساطير وممارسات. وتطبيق هذا النهج، حاولت الدراسة أن تظهر أهمية هذا النوع من الخطابات في الوعية البيئية والاهتمام بزيادة المساحات الخضراء في المجتمعات المختلفة، وقد تبين أن خطاب د.امرأ بيولا وطريقة عرضها للموضوع، من خلال تقنيات ستيب (التيهج، الإستعارة، المهرات اللغوية المعرفة، التأثير، التقنيات، الإشارات، تحذير، الإقناع) كان له فعل إيجابي على الحضور للمشتركة العلمية في تضخير بيئتهم، وهكذا يعتبر هذا الخطاب من النوع الإدراكي المفيد للمحافظة على البيئة. ويمكن تطبيق هذا النهج على أنواع مختلفة من الخطابات التوعوية التي تقدم بالقضايا المجتمعية البيئية وتؤثرها على الأفراد والمجتمعات البيئية الأخرى.

الكلمات المفتاحية: اللغويات البيئية– الخطاب الإلكتروني– الخطاب الأخضر– الخطاب النافع– تقييمات اللغويات البيئية عند آران ستيب
Abstract

Interest in green discourse affects the ideas and attitudes of people who are involved in awareness campaigns of ecological threat. Green discourse has a positive environmental focus as it increases people’s realization to help climate action. Wit (2021, p. 3) identifies the discourses promoted in case studies on climate adaptation and mitigation shared on the Urban Sustainability Exchange (USE) platform, and how these relate to ideational power. As the potential of cities to solve environmental challenges has increased, there is a need to investigate the discourses which shape how urban responses to climate change are being perceived. This paper is concerned with green digital beneficial discourse in the ecological context, i.e. “Greening Gray Beirut” as one of the Technology, Entertainment and Design (TED) talks addressed by Dima Boulad in 2015. Dima is the founder of Beirut Green Project, a group with a mission of reconnecting Beirut’s citizens and visitors to the city’s green space. This talk was given at TEDx event using the TED conference format, but independently organized by a local community. The method of analysis adopted in this paper is an eco-critical perspective approach, based on Arran Stibbe’s (2015) eco-linguistics framework. According to Stibbe, eco-linguistics analyzes language with a view to revealing the stories we live by, “the mental models that influence behavior and lie at the heart of ecological challenges” (2015, p. 2). The paper is a descriptive qualitative analysis, investigating the techniques of Stibbe’s eco-linguistics methodology and their role in revealing the dominant ecological ideologies inherent in Dima’s talk. The results reveal that the talk mostly tends to be beneficial and positive to enhance Beirut citizens awareness of the green spaces in their city.

Keywords: Ecology of language, green discourse, digital discourse, TED talks, beneficial discourse, Stibbe’s eco-linguistics techniques
1. **Introduction**

According to Wu (2018) “Language exists only in the minds of its users, and it only functions in relating these users to one another and to nature, or in other words, their social and natural environment” (p. 646). As a founder of Beirut Green Project, (a group with a mission of reconnecting Beirut’s citizens and visitors to the cities green spaces) Dima Boulad was invited to give a talk in one of the TED conferences. “Nothing is to stop us from reclaiming our city’s green spaces’ public gardens are a right, not a privilege. And in cities like Beirut, we need them today more than ever.” These words which are attached to the video of Dima’s TED talk reveal the stories included in the propositions of the talk. They are the stories we live by as Stibbe (2015) has called, based on Lakoff and Johnson’s (1980) *Metaphors We Live By*. This video has been influential to the degree that it has received 5.3k viewers since it was initially broadcast. The Internet is an outlet where massive numbers of persons can communicate and interact with each other through different social media such as Facebook, Twitter, YouTube etc. (Jones et al, 2015). This paper tackles online communication, by analyzing Dima Boulad’s TED talk on Greening Gray Beirut to enhance people’s awareness and recognition to increase the amount of green spaces, and reduce the gray spaces which is a dangerous environmental crisis.

The link between ecology and language is shown in how humans treat each other and how they treat the natural world.
Stibbe (2015, p.2) states that our natural world “is influenced by our thoughts, concepts, ideas, ideologies and worldviews, and these in turn are shaped through language”. Only an act of “language can give us the ability to see and to create a new human condition, where we now only see barbarianism and violence” (Berardi, 2012, P.157). Eco-linguistics is simply the use of techniques of linguistic analysis to reveal the stories we live by, opening them up to questions and challenges from an ecological perspective.

There has been important work in Critical Discourse Analysis which exposes the role of language in promoting racism, sexism and oppressive power relations (e.g., van Dijk 2008; Fairclough 2014), and in cognitive linguistics, which examines both the general ‘metaphors we live by’ (Lakoff and Johnson 1980) and the cognitive frames that play such an important role in political life (Lakoff 2004). While these theories and frameworks tended in the past to focus exclusively on human relations with other humans, they can also be adapted and applied to wider ecological issues, as more recent studies have increasingly started to demonstrate (e.g., Alexander 2009; Nerlich 2010; Larson 2011; Milstein and Dickinson 2012). Arran Stibbe has combined all the previous theories in his eco-linguistic framework in his book (2015) Eco-Linguistics: Language, Ecology and the Stories We Live By. The present study attempts to explore beneficial discourses, i.e. discourses which preserve the conditions of life
that work with the principles of the ecosophy (ecological philosophy). Ecosophy in one word is *Living* as explained by Stibbe (2015, pp.14-15), he lists the principles of ecosophy as: Valuing living, Wellbeing, Now and the future, Care, Environmental limits, Social justice, and Resilience. The ecosophy draws from deep ecology in being ecocentric (giving consideration to other species as well as humans).

1.1. **Aim and Significance**

The objective of this study stems from the fact that green spaces are crucial to the ecosystem, and it is important to enhance the awareness of societies towards this issue. This can be attained through language, by deploying the ideational power of the discourse (the capacity of actors whether individual or collective) to influence other actors normative and cognitive beliefs through the use of ideational elements. Carstensen and Schmidt (2016) state that “these elements include discourse, practices, symbols, myths, narratives, stories, frames and norms” (p. 320). The objective of the paper agrees with the ecosophy of eco-linguistics which advocates sustainability and harmony among all living beings and nature. The study aims to show the cognitive persuasive effect of Dima’s TED talk to promote harmony between Lebanese citizens and their environment by deploying the ideational power of the discourse. More specifically, it aims to show how linguistic features come together to form particular worldviews, ideologies and cultural codes. The stories in Dima’s talk are cognitive structures created in the minds of multiple
individuals in a particular socio-cultural context, i.e., Greening Gray Beirut.

1.2. **Research questions**

1- What are the types of stories created in Dima’s TED talk, and which type is the most illustrative?
2- To what extent is digital discourse beneficial in handling ecological issues?
3- How are the discourse tools and techniques employed in Dima’s talk reveal the stories we live by in green discourse campaigns?

1.3. **Methodology**

The method of analysis adopted in this study is an eclectic eco-critical perspective approach, which is based on Arran Stibbe’s (2015) eco-linguistics framework. It is eclectic in the sense that Stibbe has compiled critical discourse analysis, cognitive semantics, cognitive pragmatics, functional linguistics, appraisal, and multimodal theories in one framework to analyze ecology discourse. There are useful linguistic and cognitive theories available for analysing the stories we live by. Stibbe (2015) states that:

There is critical discourse analysis for analysing ideologies, cognitive science for framing metaphors, and theories of facticity, appraisal, identity and salience for the other kinds of story. All of these theories can be used to examine the language that
surrounds us in everyday life, notice patterns in that language, and discover clues to underlying stories. (P.16)

Stibbe has illustrated that Eco-linguistics analyzes language with a view of revealing the stories we live by, “the mental models that influence behavior and lie at the heart of ecological challenges” (2015, p. 2). Klaver illustrates that “a practical and ethical approach to language ecology by Stibbe provides concrete methods to judge the ecological stance of texts by identifying its linguistic features which cluster to form ecological stories” (2018: 2). Thus, the stories created in Dima’s talk Greening Gray Beirut are explored by analyzing the linguistic peculiarities of the TED talk. The analysis is a descriptive qualitative one, which utilizes data including extracts from Dima Boulad talk in Arabic with their English subtitling (the analyzed examples are explained in Arabic and/or English due to: First, the universality of the environmental issues in the talk as greening cities is a crucial global problem. Second, while the talk is given in Arabic, English translation is given at the same time in TED conference.). The analysis includes verbal and visual description of the extracts selected from the video so as to get an integrated picture of the eco-linguistic discourse strategies used by the speaker.

1.3.1. Data
Dima Boulad’s TED talk entitled: *Greening Gray Beirut* which was presented in September 2014 has been selected for the data analyzed in this paper. The analysis depends both on the video retrieved from Youtube.com/watchTEDxtalk and the script of the talk from Amara platform (see appendix). The talk is divided by the researcher into eighty-five propositions, each of which contains a complete thought concerning the issue discussed.

To make it easy for investigating the types of stories suggested in Stibbi’s framework, the talk is divided into extracts, each of which is given a number. Some propositions contain more than one story and more than one linguistic technique. Dima Boulad is one of the Lebanese designers who has a strong passion and love for art, positive social changes and multimedia. She completed her studies in the American university in Beirut in the field of Graphic design. She is the co-founder of the green project in Beirut to provide more green spaces in public places instead of dark and gray nature. This group project is concerned with grouping Beirut’s citizens and city visitors for the green spaces to save those little green ones and help in creating more spaces.

### 1.4. TED Talks

TED talks are influential videos presented by speakers on educational, promotional and social awareness campaigns. They are presented in a short form known as: Technology,
Entertainment and Design, TED, a non-profit, non-commercial organization initiated in 1984, aims at publishing various ideas related to specific fields of Technology, Entertainment and Design in the form of 18-minutes-Talks with powerful and attracting ideas in the selected fields. As an international organization, it groups different people around the world in order to spread powerful ideas and thoughts (TED.com).

The first TED Conference was held in 1984 in Monterey in California under the supervision and observation of the cofounder Richard Saul Wurman (Brunello, 2019, p. 60). Wurman was hopeful to hold one TED Conference annually, with the participation of those innovators in the fields of Technology, Entertainment and Design to recall the recent discoveries accomplished by those leaders and to talk about the world and its promising future (Bulantová, 2020, p. 18). Despite the fact that Wurman did not achieve any profits or success from his first TED Conference, he deeply thought of the impact that the first TED Conference left on the audience and the people’s long debates about the conference that was the spark for Wurman to prepare for the second TED Conference in 1990 (Tosatto, 2019, pp. 45-46). The second TED Conference achieved the desired goal and profit that enabled Wurman to organize the succeeding conferences.

The idea of 18-minutes-long talks is concerned with neuroscience principles that 18 minutes are enough for a speaker to present an idea, and for the audience to realize this idea.
Wurman organized TED Conferences till Chris Anderson, the British entrepreneur who was the leader of Hobby-Magazine publishing company, decided to buy and direct TED Conferences in 2001 (Samayoa, 2017, p. 50). Anderson widened the domain of TED conferences in order to be globally accessible by presenting various events and initiatives outside the United States as TED Global, podcast series that are accessible online as TED Talks, and independently established events as TEDx (Bulantová, 2020; Tosatto, 2019). Thus, these online talks are comprehended by people throughout the whole world in different languages. Consequently, TED established a program for TED Translation, including various volunteer translators for the task of subtitling the talks in hundreds of languages (Tosatto, 2019, p 46).

1.6. Amara Platform

Amara platform is a free platform for subtitling TED Talks in which volunteer translators can join after the signing up to the platform. It is not only a platform for subtitling TED, but also for other products even on YouTube (Bulantová, 2020, p. 22). A translator can sign up to translate a specific talk freely on Amara platform and as a result, he joins TED team translators without any evaluation or tests (Tosatto, 2019, p. 51). The volunteer translators should be fluent in both the source and target languages and to follow the requirements and guidelines of TED (Bulantová, 2020, p. 21). The steps for subtitling any audiovisual
product or a TED Talk involves preparing a script for the talk, dividing the written script into suitable captions to fit the spatial and temporal constraints, translating the written captions, adjusting them to the original audiovisual product, and finally insert the synchronization between the written captions and the source dialogue. Such TED Talks are accompanied with a written transcript prepared by another volunteer and the translator starts subtitling the talk within the online editor (p.22). The online editor is designed to apprise the subtitler in case of exceeding the limit of characters per line and per second which is limited to 21 characters within only one second and 42 characters per line as a maximum (Brunello, 2019, pp. 61-62). Each volunteer translator on Amara platform is assigned to limited number of tasks, five tasks, and each task should be completed within 30 days as utmost limit (Tosatto, 2019, p. 51).

1.7. Summary of the talk

Boulad’s talk reveals the dangerous state of climate change in Beirut, which is reflected in the deficiency of green spaces and the increase of gray spaces. Each individual has enjoyed 0.8 square meters of green spaces in Beirut which is considered a very little space in the volume of a chair. Boulad has shown, that according to the World Health Organization, this is a little space for a person to enjoy the right of fresh healthy weather. She has continued that in order for a city to be in a fine health, it should have at least nine square meters of green spaces per person. She has discovered the critical state of her country when she was in
Paris while completing her studies. When she came back to her country, she compared between the two countries. She has indicated the importance of the green spaces for the individual’s thinking, behaviors and feelings. Boulad and her friends have decided to design signs and slogans in the streets, as for instance; ‘Enjoy your green space’. These signs have been placed in different locations in Beirut to emphasize the importance of the green spaces. Boulad and her group have designed a map of the 24 green spaces in Beirut, so that any citizen can go to the website and visualize the green spaces and obtain the information s/he needs about these green spaces. Boulad has motivated the citizens and individuals in Beirut to call their rights in possessing green spaces in order to enjoy the greenery, thus enjoying a happy life.

1.8. Digital Discourse

Human communication is multimodal by nature (Norris 2004) but digital technologies are multimodal by combining writing, images, sounds, and other semiotic modes. Thus, we should place “the concepts of multimodality as central to current research on language and digital media” (Georgakopoulou & Spilioti, 2016, p. 3). Language and social media researchers seem to agree on the centrality of the social processes of self-presentation and relational management when communicating in online environments. Thus, a significant number of studies focuses on media practices that aim to construct who we are and
how we relate to others (e.g. Bolander & Locher, 2015; Bou-Franch & Garcés-Conejos Blitvich, 2014a, 2014b; Tagg & Seargeant, 2014, 2016).

Social media create new spaces for online identity performances and negotiations, and the study of the processes behind the “formation of new forms of social organization and social interaction” (Castells 2000, p. 693) needs to pay special attention to the role played by the social and technological affordances (Herring 2007). The availability of multiple semiotic modes for identity construction, alongside users’ agentive choices to employ certain resources, are issues that affect identity construction and negotiation (Blitvich and Bou–Franch, 2018).

For Thurlow (2017a), a critical perspective on digital practices within the field of critical discourse analysis should examine the ways in which micro–level practices construct social worlds and how macro–level structures and ideologies shape our communicative practices, i.e. how texts and the worlds are mutually shaping/shaped (by) each other. Indeed, we agree on the need to fruitful interconnections between digital discourse and critical discourse analysis.

The field of digital discourse analysis, variously called computer–mediated discourse, new media sociolinguistics or language and digital communication, has been discussed in terms of three waves. Studies within the first wave contained mainly descriptive linguistic approaches and were carried out in the 1990s, the
2000s. The second wave saw the consolidation of computer-mediated discourse studies which brought into the picture socially-oriented language researchers concerned with linguistic variability, social diversity, issues of identity and community formation and maintenance. The third wave is a collection of studies more specifically, concerned with the study of digital social practices (Georgakopoulou, 2006; Herring & Androutsopoulos, 2015).

1.9. **Green Discourse**

Yuniawan, et al (2017) state that lingual units in green discourse affect the sense and logic of people who are involved in the discourse including, writers and readers or speakers and listeners. They argued that:

If green discourse is constructive, then their attitude and actions to the environment are constructive. Conversely, if green discourse is more destructive and exploitative, then their attitudes and actions towards the environment will also be affected towards destruction and exploitation (p. 291).

The environmental discourse with all its manifestations (oral text, written text, images and internet) is called green-speak. Green discourse is constructed for certain purposes; it is used for campaign of socialization of environmental conservation and for criticism of the elements who play a role in environmental damage. Green discourse, or it can be called the environmental
discourse. It is often found in everyday life, in print media such as newspapers and magazines, and in electronic media such as radio, television and internet.

1.10. Beneficial Discourse

Stibbe (2015) states that beneficial discourse conveys ideologies which encourage people to protect the systems that support life. The purpose for analysing beneficial discourses is to promote ecologically beneficial behaviours which value the lives and wellbeing of humans and other species (p. 30). The term Positive Discourse Analysis is introduced by Martin (2004) for the analysis of useful discourses. Goatly (2000) examines a destructive discourse in comparison with a beneficial one, contrasting the discourse of newspapers with romantic poetry as one of the first eco-linguistic studies. The study concludes that the natural world’s view of Wordsworth presents a better model for our survival than the one represented by The Times. “To survive we had better take note of Wordsworth … rethink and respeak our participation in nature before it rethinks or rejects our participation in it (Goatly, 2000, p. 301). Thus, Dima’s talk is promoting, aiming at the wellbeing of Beirut as a green society restoring its natural green gardens.

2. Theoretical Framework

*Stories We Live By* is based on Lakoff and Johnson’s (1980) *Metaphors We Live By*, which “gave a radically new perspective on the role of metaphors in our lives (Stibbe, 2015, p. 185). In their book, they Wrote “the concepts that govern our thought
are not just matters of the intellect. Our concepts structures what we perceive, how we get around in the world and how we relate to other people. Our conceptual system thus plays a central role in defining our everyday realities” (Lakoff and Johnson, 1980, p. 3). It is stated as the core of social representation theory by Rateau et al (2012) that a range of ideas, attitudes, perceptions, evaluations and beliefs exist, in addition to metaphors that form the thoughts of multiple individuals in social group.

The core of Stibbe’s model lies in the existence of eight types of stories: ideologies, framings, metaphors, evaluations, identities, convictions, erasure, and salience. Ideologies are stories shared by specific groups. The ideologies reveal themselves through discourses, which are characteristic forms of language used by groups or institutions. Framings are stories about a specific area of life that make use of small packets of general knowledge called frames. Metaphors are a type of framing which can be particularly powerful and vivid since they use a specific, concrete and clearly distinct frame to think about an area of life. Evaluations mean stories in people’s minds about whether a particular area of life is good or bad. Cognitive evaluations do not involve a careful weighing up of evidence about whether something is good or bad, but are associations that people have in memory. He proposes three dimensions to his model: Stories are the cognitive structure in people’s mind; the stories we live by are shared across
large numbers of people; and linguistic manifestations are the patterns of language that arise from the underling stories.

Identities are stories about who we are as people, particularly about the groups that we belong to, and the place of those groups in society. Convictions refer to stories in our minds about whether a particular description of reality is true, likely, unlikely or false. Convictions are not about whether something is objectively true, but whether we believe it to be so, and the degree of certainty that we have about this belief. Erasure is where stories in people’s minds treat something as unimportant, marginal, irrelevant or inconsequential. Salience is where stories in the mind represent something prominently, as important and worthy of consideration. Eco-linguistics itself can be considered an attempt to increase the salience of the more-than-human world within a mainstream linguistics which tends to focus on the role of language in human interaction without considering the larger ecological context. The eight forms that stories take according to Stibbe (2015) are summarized in Table 1.

Table 1. Eight forms that stories take, and their linguistic manifestations as presented in Stibbe (2015: 17)

<table>
<thead>
<tr>
<th>Form of the story (cognitive, i.e. in people’s minds)</th>
<th>Manifestations in language = devices and linguistic techniques</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ideology:</td>
<td>discourses, i.e. clusters of</td>
</tr>
<tr>
<td>Framing: a story that uses a frame (a packet of knowledge about an area of life) to structure another area of life</td>
<td>linguistic features characteristically used by the group trigger words which bring a frame to mind</td>
</tr>
<tr>
<td>Metaphor: a story that uses a frame to structure a distinct and clearly different area of life</td>
<td>trigger words which bring a specific and distinct frame to mind</td>
</tr>
<tr>
<td>Evaluation: a story about whether an area of life is good or bad.</td>
<td>appraisal patterns; patterns of language which represent an area of life positively or negatively</td>
</tr>
<tr>
<td>Identity: a story about what it means to be a particular kind of person</td>
<td>forms of language which define the characteristics of certain kinds of people</td>
</tr>
<tr>
<td>Conviction: a story about facticity patterns; patterns of</td>
<td></td>
</tr>
</tbody>
</table>
whether a particular description of the world is true, uncertain or false | linguistic features which represent descriptions of the world as true, uncertain or false

| **Erasure** | a story that an area of life is Unimportant or unworthy of consideration | patterns of language which fail to represent a particular area of life at all, or distort it |
| **Salience** | a story that an area of life is important and worthy | patterns of language which give prominence to an area of life |

2.1. **Eco–linguistics**

Eco–linguistics is obviously the combination of ecology and linguistics, two disciplines which appear to be unconnected at first. Stibbe (2014) points out that “the disconnection occurs only if ecology— the study of the relationship of organisms with each other and the physical environment— fails to include human beings as organisms” (p.1). It explores the general “patterns of language that influence how people both think about, and treat the world” (Stibbe, 2015a, p. 1). One of the objectives of eco–linguistic analysis is to show how linguistic features come together to form particular worldviews or cultural codes, the sets of “shared values, norms, ethos and social beliefs” which reflect
the community’s common sense (Gavriely-Nuri, 2012, p. 80). Van Dijk (1993, p. 249) stated that eco-linguistics is concerned with how powerful groups convey ideologies that oppress other groups, including animals, current generations of humans who are suffering from pollution, and future generations of humans who will find it harder to meet their needs.

An inclusive view would be that ecology consists of the relationships of humans with other humans, other organisms, and the physical environment. Language, then, is relevant to the extent that it plays a part in how humans link to each other, to other organisms and to the environment. Language can, to a certain extent, influence the way we think about the world, which in turn affects how we act, hence language can inspire us to protect or destroy the ecosystems that life depends on. In this sense, eco-linguistics is about critiquing forms of language that encourage ecologically destructive behavior or lead to ecological destruction and helping to look for those which encourage relationships of care and respect for the natural world or inspire people to protect the environment.

Alexander and Stibbe (2014) point out if we define linguistics simply as ‘the study of language”, we end up with defining eco-linguistics as “the study of the impact of language on the life-sustaining relationships among humans, other organisms and the physical environment. It is normatively orientated towards preserving relationships which sustain life” (p.7). In other words,
eco-linguistics is concerned with how language participate in forming, maintaining, influencing or destroying relationships between humans, other life forms and the environment.

3. Related studies

This section gives a review of some literature on eco-linguistics discourses according to the operational definition relevant to this study. Many researchers have approached the field of eco-linguistics, tackling various environmental texts from different perspectives. The tools and topics of their studies have been different from the ones used in this study. Examples are given to survey what has been written in eco-linguistics studies.

Hasan (2015) investigates climate change and the risk messages of the environment in online newspapers. His aim has been to comprehend how journalists use pictures to create meaning of environmental risks. He has examined nine news samples with pictures from two online newspapers in Malaysia and Germany. He has adopted Kress & van Leeuwen's (2001) visual social semiotics, namely the interpersonal meta-function. He has found out, that a few number of stories are related to climate change risk. Both Malaysian and German journalists employ similar signs to depict climate change, Malaysian journalists exposed this risk as threat and danger, whereas German journalists depict it as a choice.

Wang et al., (2019) use Systemic-Functional linguistics to analyze the United Nation's general-secretary’s remarks on climate change, and reveal the ecological ideologies from the
perspective of Eco-linguistics. They conclude that the mental processes are the most dominant in the speech, followed by the relational processes. Through the use of the processes, it becomes clear that human behavior is responsible for environmental problems. The speaker has appealed to the people to come together and take action through the use of material processes.

Hamed (2020) analyzes thirteen examples of digital discourses having an ecological concern about the harms of single-use plastic from an eco-critical perspective. Her study has approached four Facebook pages that have an environmental focus directed against single-use plastic products. She has used a multimodal analysis to suite the verbal and visual modes of communication in these pages. She concludes that both verbal and visual metaphors addressed logical thinking, so that people may be motivated to use eco-friendly material in place of plastics.

In another study, Larouz and Mliless (2018) follow an educational approach to eco-linguistics by analyzing fourteen environmental texts. The results show that agency, euphemism and passive voice have a negative effect on the students’ perception of the ecological issues. The study concluded that these techniques were frequently used in the analyzed texts, meaning that there was no responsibility towards environmental destruction. Thus, students are not being aware of the environmental problems.
Stibbe (2001) conducts a study describing how language in the animal industry texts has a contribution to the exploitation of animals. Conducting a critical discourse analysis of the texts, he has found that, at the lexical level, people disregard and misuse animals. The lexical items used in representing animals are different from those used with humans. For example, slaughtered is attached to animals but murdered is used with humans. Most of the idioms associated with animals demean them. Thus, his aim is to raise people’s awareness towards animals’ suffering, and he is against the misuse of animals for the sake of profits advantage, because this has a negative effect on the ecological balance.

Hameed’s (2021) study aims at examining how animals are linguistically shown in the Quranic discourse by using the theory of frames. The study affirms that the Holy Quran estimates and values other creatures’ significance, and encourages us to respect other non-human living beings. It is maintained that, animals are represented in the Holy Quran as beings, created for different purposes to create the ecological balance of the world.

Thus, many studies tackle environmental texts from different perspectives but none has tackled environmental texts integrating the eight types of Stibbe’s framework to TED talks as digital green discourse. Dima Boulad’s video on Greening Gray Beirut addresses the two modes of communication, i.e., the logical and the emotional, and thus, this eco-themed talk has been examined from verbal and visual cognitive approach.

4. Analysis and Discussion
As it has been mentioned above, Stibbe’s (2015) framework of eco-linguistics is adopted as the model of analysis in this paper. To be remembered, Stibbe has taken Lakoff and Johnson’s ideas of metaphors we live by, extending them to the more general stories we live by. His framework includes: ideologies, frames, metaphors, evaluations, identities, convictions, erasures and salience. All of these types can be illustrated in discourses through the two moods of communications; the logical mood and the emotional one. The eight stories in Dima’s TED talk share some themes which are explored through the discourse tools and techniques employed in depicting Beirut city now and then; it is supposed that Beirut is a symbol for many cities in the world. 

*Figure 1* represents the model of analysis in this paper; it presents the series of the stories we live by. Outside the hexagons, the core of the model (the stories of the talk) appears at the top on the right; ideologies as the main story and the heart of the model appears outside the hexagons in the middle on the left. Inside the hexagons, the other types of stories appear as the arteries and veins of the heart.
Figure 1. The model of analysis used in this study

The analysis tries to find out the peculiarities of the talk as features of the language of TED discourse which arise from its cognitive structure techniques. The interest in the talk is as Stibbe has put it is composed of three dimensions: the stories (the cognitive structures in people’s mind, i.e. greening gray Beirut); stories we live by (which are shared across the minds of large number of people, i.e. Dima with her colleague in the campaign, the audience in the event of the TED conference, as well as the viewers of the video on Youtube); and the linguistic manifestations (which are the patterns of the language underlying the stories). After watching the video and reading the talk, it has been found that dividing the talk into extracts accompanied with
numbers, could make it easier to denote to them in the analysis. The community of this talk consists of the addresser (Dima Boulad); the audience who are attending at the place of the event, and the place itself with its greenery decorated and background to suit the topic of the talk.

4.1. Ideologies

Ideologies are revealed in the talk as the main story, i.e. *Greening Gray Beirut*, connecting the other stories in one frame which is presented in the manner of Dima’s mastering of both logical and emotional moods, the audience responses, as well as the visual elements in the video. As stated by Kress (2010, p. 110), “discourses construct meaning about the world from an institutional position and meaning resources are available in society to make sense of the world social and nature”. The stories that underlie discourses, in Stibbe’s framework, which are referred as the term ‘ideology’, are defined as: “Ideologies are belief systems about how the world was, is, will be or should be which are shared by members of particular groups in society” (p. 23). As van Dijk (2011, p. 382) puts it, ideologies are “a form of social cognition, that is beliefs shared by and distributed over (the minds of) group members”.

The stories are conveyed through the choice of lexical items, grammatical constructs and other linguistic features that are standardly used by a particular group. Ideologies in this TED talk actively encourage people in Beitut to protect the systems that
support life. Dima’s talk is a positive discourse, Martin (2004) used the term positive discourse analysis for the analysis of beneficial discourses, because the aim is promoting the discourse not resisting it. Thus, the talk analyzed in this paper is helpful and beneficial according to Stibbe’s definition “The term Positive Discourse Analysis is helpful in emphasising the importance of the search for beneficial discourses which are useful in facing contemporary challenges”. (p. 31)

The features of interest include (as explained by Stibbe, p. 34) vocabulary (e.g. connotations of words, pronoun use, modals such as ‘might’ or ‘must’), relationships between words (e.g. synonymy, antonymy or hyponymy), grammatical structures (e.g. active vs passive, nominalisation), transitivity (the arrangement of processes and participants in a clause), assumptions and presuppositions embedded in clauses, relationships between clauses (e.g. reason, consequence, purpose), how events are represented (e.g. abstractly or concretely), and how participants are represented (e.g. as individuals or figures of speech (e.g. irony, metaphor, metonymy).

In Dima’s talk, the ideology is conveyed through vocabulary and lexical choices: green, spaces, garden, grass, park, gray and their collocates: green spaces, green grass, green garden. (see appendix), deixis of time, place, and tense aspect which evoke enhancing the awareness of the Lebanese people to the environmental change in their cities. The campaign’s purpose is
to change gray into green, which is clear in the title of the talk, *Greening* in its different grammatical forms, including nouns, verbs, and adjectives as follows:

14 – **That Beirut wasn’t like that.**

15 – **Beirut was green, it had green spaces.**

16 – **It was green like that, and it's turning gray like that.**

17 – **We are stripping Beirut from its green spaces.**

In the above examples, the word *green* is frequently used in the talk more than the word *gray*, but even when *gray* is not uttered, it is understood by using deixis, as in extract 14, *that* at the end of the clause has the connotation of *gray*. The use of the past tense in extract 14, 15, and 16, *Beirut wasn’t*, with the use of negative encodes the aspect of a complete change in Beirut’s green spaces to gray, it also denotes sad emotion as a result of this change. The two lexical items, *green* and *gray* are evocative in Dima’s talk, they are connected to the other types of stories and they are represented verbally and visually, this is clarified in the next parts of the analysis. In extract 17, The use of progressive present tense, *are stripping* is a threat, she is warning the citizens that graying Beirut is extended to include huge spaces. It denotes the ongoing of stripping Beirut from its green spaces, Dima Boulad reveals the dangerous state of Beirut due to the
increase of gray spaces and the lack of green ones. Table 2 shows frequency of green, garden, space and gray in the eighty–five extracts of Dima’s talk.

**Table 2. Frequency of green, garden, spaces and gray in Dima’s talk**

<table>
<thead>
<tr>
<th>Frequency</th>
<th>green</th>
<th>%</th>
<th>garden</th>
<th>%</th>
<th>Green space</th>
<th>%</th>
<th>gray</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total extracts number: 85</td>
<td>19</td>
<td>22.35</td>
<td>10</td>
<td>11.76</td>
<td>21</td>
<td>24.7</td>
<td>3</td>
<td>3.53</td>
</tr>
</tbody>
</table>

It is noted that green and green space have high frequency in the talk, then garden too has high frequency to explain the benefits of greening Beirut. Gray has the lowest frequency as it is the color which needs to be vanished and replaced by green.

Modals in the talk contribute to the ideologies of the campaign, they express the speaker’s belief and attitude. Modality can be expressed through a variety of grammatical categories: modal auxiliary verbs (for example, should, must, can, would), nouns (possibility, necessity, probability, requirement), adjectives (possible, necessary, probable), as well as other means. Modals which are about rules, right and wrong, obligations, and so forth are known as deontic modals.

18– I felt I had to do something.

شعرت بأنني على القيام بامر ما
Modality in the above extract is deontic; it explains Dima’s state of mind that it is her duty to take an action towards the gray condition in Beirut. Extract 13 illustrates the reason which urges Dima to take action: I felt frustrated, suffocated. I felt something was wrong.

When she came back from Paris with its greenery spaces, she felt frustrated, suffocated because of the gray spaces she found in Beirut compared to Paris. In extract 38: But we shouldn't forget that before the electricity is provided for us, public green spaces are a necessity. Yes! A necessity, لكن علينا أن لا ننسى، أنه وقبل أن يصل إلينا التيار الكهربائي علينا أن لا ننسى أن المساحات العامة الخضراء ضرورة.  أحل ضرورة.

epistemic modal shouldn’t involves reference to the facts she knew about her country, and necessity is repeated to show that green spaces are indicative and assertive. (see appendix for more modals, extracts: 48,49,51,84,85, and some others.

Transitivity is one of the crucial tools for reflecting ideology in discourse; it is the arrangement of processes and participants in a clause. The system of transitivity carries "the main responsibility for representing the events and situations to which the text refers" (Fowler, 1991, p. 198). Transitivity concerns types of processes and participants that are represented in the clauses. Halliday (2004) identifies a number of processes including material processes, which are physical actions in the world; mental processes, which involve thinking or sensing, and verbal
processes which are processes of speaking, writing or communicating. Depending on the process, there are different participants involved: for example, a material process involves an Actor (who is the one doing something) and the Affected (the one having something done to them). For mental processes there is the Senser (the one thinking, feeling or perceiving) and the Phenomenon (what they are perceiving).

Transitivity is useful in indicating the ideologies in Dima’s talk, the three processes are manipulated to tell the story of greening gray Beirut. Concerning material process which is the process of doing physical actions, Dima and the campaign’s members took many material actions to inspire the process of greening Beirut. This is clear in the use of active material verbs with their different moods and aspects which narrate the story; moved, drinking, eating, designed, sorted, walking, worked, take, took taking etc. (See appendix, extracts: 10, 12, 25, 27, 51, 59 for complete clauses and other material processes). For mental processes which include cognitive meanings, there are also many in the talk denoting the importance of the issue of the environmental change in Beirut; remember, enjoy, see, tell, felt, frustrated, confused, told, wished, believed, think etc., (extracts: 1, 4, 8, 9, 13, 28, 35 see appendix). All mental processes in Dima’s talk reveal that the talk is constructive, and the communicators’ attitude and actions to this environmental event are constructive.

Verbal process refers to activities related to information that includes saying, asking, commanding and offering which is
used in the talk. Dima asked the audience a lot of questions to enhance their environmental awareness. Extract 8: *How much less we are.* ....... 43: *How well do we really know Beirut,* and 47: *Why do we feel this* ....... as well as others (53, 54, 56 etc.). These questions are intended by Dima to engage the audience with her campaign, urging them to participate actively and positively in the event of greening Beirut. There are other processes in this talk, behavior process, reflecting the positive and negative responses of the participants towards this issue. Transitivity can be thoroughly applied to this talk in a separate paper. Thus, ideologies are manipulated in discourse through different linguistics features, some of them are tackled in analysing the talk to prove its persuasive power. Figure 2. Shows how visual mood is manipulated with the verbal mood when Dima was explaining and showing the audience how a campaign’s member designed signs that look like the street municipality signs: "Enjoy your green space".
4.2. Framing and Metaphor

In stibbe’s framework framing and metaphors are illustrated as divergent stories. However, in this paper, framing and metaphor are analyzed in one section as they are related to each other. Framing is defined as “stories about a specific area of life that make use of small packets of general knowledge called frames” (stibbe, 2015, p. 186). He has framed climate change as an environmental issue. According to him, metaphor is a type of framing which can be powerful and vivid because, in metaphors, we use a specific, concrete and clearly distinct frame to think about and acquire an area of life. He has explained this notion by giving some examples.
(p. 186): “climate change is a time bomb”, “climate change is a rollercoaster”, and “climate change is an angry beast”.

In Dima’s talk, metaphors are used to show the threat of changing Beirut to gray, and to convince the audience to share her to find a solution. Extract 7, 10, 17, 73, and 85 are examples, the talk has many framings and metaphors that can be included in a separate paper:

7- for a city to be healthy, it needs to have a minimum of 9 square meters of green space

10- While I was there, I fell in love with the greenery.

17- We are stripping Beirut from its green spaces.

73- to rehabilitate our gardens.

85- This is how we will be really helping Beirut

The trigger words and phrases, “healthy, needs, spaces, 9 square meters of green space, fell in love with, greenery, stripping, gather around the concept, the right, looking at our city, rehabilitate, and helping Beirut” in the above metaphors are mapped out on the target domain of an ideal, healthy (Beirut) which is associated with the source frame of green city build.
With these words, the audience’s awareness is arisen, and consequently they are expected to rush to restore the old beautiful story as a reaction to this campaign, "Beirut is Wonderful," in Dima’s words. Beirut is depicted as someone who is ill and needs rehabilitation and care to get back his health; the concept of the right is the one who helps Beirut; so people are gathering around him, and greenery spaces in Paris is a man whom Dima fell in love with etc.

In Stibbe’s words “frame is a story about an area of life that is brought to mind by particular trigger words. Framing is the use of a story from one area of life (a frame) to structure how another area of life is conceptualised” (p. 47). Thus, the stories created in the above metaphors (concerning Beirut which has become gray city due to the narrowness of the green space for each Lebanese citizen “0.8 square meters, the amount of green space which each one of us in Beirut enjoys” are described by frame theorists as ‘packages of knowledge, beliefs, and patterns of practice’ (Fillmore and Baker 2010, p. 314), ‘situation types’ (Chilton 2004, p. 51), ‘memories, emotions and … values’ (Blackmore and Holmes 2013, p. 14), ‘factual and procedural knowledge’ (Darnton and Kirk 2011), and ‘structures of ideas that we use to understand the world’ (Lakoff and Wehling 2012, p. 4).

By manipulating metaphors, Dima frames the concept of greening gray Beirut by triggering words to call up the frame in the minds of the audience; as Lakoff (2010, p. 73) puts it “words can be chosen to activate desired frames”. Metaphor works in the
same way as framing, it uses a frame from a specific, concrete and imaginable area of life to structure how a clearly distinct area is conceptualized. Analysing metaphor requires identification of the source frame and the target domain. The target domain is the general area being talked about, while the source frame is a different area of life that is brought to mind through trigger words.

In general, analysing metaphor and frame from an eco-linguistic perspective includes identifying the source frame and target domain, and finding out which elements of the source frame are mapped onto the target domain by the use of textual cues. Stibbe has stated that “from an eco-linguistics perspective, what is most important is whether metaphors are destructive, ambivalent or beneficial from the perspective of the ecosophy” (p. 67). All Dima’s frames and metaphors are beneficial and constructive, which is proved in the audience’s reactions. If you watch the video, you will prove this.

4.3. Evaluation

In illustrating evaluation, Stibbe has adopted the Appraisal Theory’s resources. Martin and Rose (2003, p. 58) explicated that “[a]ppraisal is a huge resource for constructing communities of feeling, and a great deal of it is realised through lexis as well as grammar”. Dima as a presenter has been initiative, talented, and smart young lady who has the ability to persuade her audience. She has made use of verbal and visual techniques in presenting
the event, in which both logical and emotional moods are exploited in the talk. Positive appraisal items or lexis and phrases in the talk, (e.g., green, greenery, green spaces, beautiful, good, nice, better, public green spaces, gathered around, green gardens, Beirut is Wonderful, greenhouse, making things better, rehabilitate our gardens, beautiful running track, relieve ourselves, there’s our health, Beirut was green, and fell in love, etc.) combined with the photos presented to the audience are utilized in depicting the situation in Beirut. The word, gray is enough to bring about extraordinary reaction, when she said: It was green like that, and it's turning gray like that presenting this declarative, asserting grammatical structure visually, by showing the audience two photos for the green and grey states has been influential. Figure 3, bellow illustrates the evaluation techniques (verbally and logically), when she talked about the old story that Beirut was green and it had green spaces, she presented the audience a photo of that state. When she compared the old green story with the now gray story, she presented a photo combining the two states. On talking about the pop-up space Sassine, which was a one-day garden organized by the campaign, she presents photos to engage the audience with her.
Figure 3. shows verbal and emotional evaluation.

The opening of the talk with the declarative, imperative statement: “I want you to, remember one number today” attracts the attention of the audience to the importance of the situation in Beirut. Repeating the number 0.8 which represents “the amount of green space which each one of us in Beirut enjoys”, and giving facts, e.g., According to the World Health Organization for a city to be healthy, it needs to have a minimum of 9 square meters of green space, adds to the attraction of the people’s attention and interest. In Stibbe’s (2015) eco-linguistics framework “the mental models in people’s minds about whether something is good or bad are referred to as evaluations. Appraisal patterns are clusters of
linguistic features which come together to represent an area of
life as good or bad” (p. 84).

theory is concerned with how writers/speakers approve and
disapprove, enthuse and abhor, applaud and criticize, and with
how they position their readers/listeners to do likewise”. How
the patterns of appraisal across a text establish a tone or mood is a
key concept in appreciating the issue. Martin and Rose (2003, p.
54) call this a ‘prosodic pattern of appraisal choices’, or, in other
words, an appraisal pattern: The prosodic pattern of appraisal
choices constructs the ‘stance’ or ‘voice’ of the appraiser, and this
stance or voice defines the kind of community that is being set up
around shared values. Prosodic pattern in Dima’s talk clarifies
both her and the audience’s stance, which is clear in the excessive
use of interrogative. Again, she is engaging the audience by
posing questions and affecting them to have an active positive act
(see appendix, extracts: 64,47,53,54,55,56), and in the audience
response, raising hands, giving answers, applauding, laughing.
She knew where to use rise or low tone, where to pause for few
seconds, where to stress important words, especially, when she
mentions names of the famous gardens in Beirut.

4.4. Conviction and Facticity

This paper uses the terms ‘convictions’ and ‘facticity patterns’
in the same way in Stebbi’s eco-linguistic model (p. 129):
“Convictions are stories in people’s minds about whether a
particular description is true, certain, uncertain or false. Facticity
patterns are clusters of linguistic devices which come together to represent descriptions as certain or true, or to undermine descriptions as uncertain or false”. Dima’s use of scientific, selected facts are based on actual evidence: \(0.8\text{square meters}\).

This number represents the amount of green space which each one of us in Beirut enjoys. According to the World Health Organization for a city to be healthy, it needs to have a minimum of \(9\text{ square meters of green space}\). See how much less we are from the minimum requirement? These utterances present facts about the environmental situation in Beirut.

The description of the gardens in Beirut and giving statistics of their true number, as well as presenting their photos and names illustrate objective scientific facts which are sufficient to determine what actions need to be taken. Conviction is expressed with high facticity patterns as a certainty to convince the audience that it is their right to enjoy the green spaces in their city. This conviction could then guide behaviours of the campaign and the citizens in Beirut:

**We gathered around the concept of the right, the right to have public green spaces in Beirut.** 42, The municipality is promising us that Horsh Beirut would be open in 2015. Let us tell them that we are here and we are waiting for them to open up the gates. 72. Figure 4 shows that the description of the gardens is considered to be just the way things are rather than a particular perspective.
Facticity is seen in the talk also, by using anecdote technique, which is a short story related to the subject being discussed. Seven years ago, I moved to Paris to continue my studies. This is clear when she narrated: While I was there, I fell in love with the greenery. Each day, I would go to a garden or a green space; in the morning while drinking my coffee, at lunch time, instead of eating my sandwich on my desk, and at night, if I wanted to meet up with friends. I didn't notice how affected I was by those places until I came back to the 0.8 square meters per person in Beirut. I felt frustrated, suffocated. I felt something was wrong. As a TED talk speaker, Dima was very engaging, super effecting and persuading, her stories worked...
because everyone loves stories, and that the issue relatable and personalized. It helped her to establish a relationship with the audience, as well as provoking their emotional response.

4.5. Salience, erasure and Reminding

These three eco-linguistics terms are interrelated, when an area of life is important and worthy of attention. It is represented linguistically and visually through concrete, specific clear depiction. When Dima talked about the gardens, she mentioned their names and places to remind the Lebanese people of the wonderful gardens, which were ignored (explicitly calling attention to the erasure of an important area of life). It is possible to reveal salience patterns which represent an area of life by “analyzing a range of linguistic features, including focus, vitality, levels of abstraction, transitivity and metaphor”. (stibbe, 2015, p. 162).

The salience pattern in the talk is promoting the color green, green grass, green spaces, green gardens: green as a level of abstraction stands for nature, renewal, life and growth. Repeating the word green denotes the renewal and restoration of the concrete green gardens and spaces in Beirut. Green is also embedded in the whole talk. Moreover, the salience patterns in this talk and the video make the natural world (greening gray Beirut) more prominent in the minds of the audience and thus, construct nature as worthy of consideration. Vitality helps in making the issue salient in the minds of the audience: this is
shown in the use of material processes with their active, positive influence. Examples of material and mental processes have been given above in the ideology section, but the talk contains many of them. Reminding the audience of the gardens, using verbs like, go, play, running, jogging, hold a concert, have a meeting, walk, etc., with if conditional and active voice, has created a sense of acting these activities. This can be exposed in these extracts:

65 - You want to go jogging? Try going to Sanayeh, it has a new beautiful running track.

66 - If you want to go and play with your kids, try Sioufi Garden which has a great space.

67 - Do you want to even hold a concert? Why don't you think about Gebran Khalil Gebrans Garden?

Mental processes also help in showing the issue vividly, particularly as Dima endows people’s enthusiasm to think seriously about increasing their right to enjoy green spaces and green health in their country:

77 - If we don't talk, nothing will happen. And together, we can start looking at our city in a different way because it's not true
that there is nothing to do, it's not true that things are just like that.

إذا لم نتكلم، فلن نصل أي شيء، ويمكننا سوية أن ننظر إلى مدينتنا بطريقة لستلفة.

الصحيح أن لا يمكننا القيام بأي شيء، وأنه علينا أن نستسلم لهذه الأوضاع.

We can do small things that would change things a lot.

يسكننا القيام بالأشياء الصغيرة التي تغير الكثير.

Sense image is another linguistic feature by which prominence of an issue can be built. Salience is also constructed in Dima’s talk through employing sense images that appeal to the senses of sight, hearing, smell, taste, or touch. Sense images enable the audience to imagine being in the scene described by Dima and viewing for themselves what she is viewing, leading to strong salience for what is being described. The direct verbs of sensing such as ‘see’ or ‘look at, and the word green itself are associated with light that can give rise to sense images. In this way, Dima and other the participants in the event, including the audience are represented as doing, thinking, feeling, and saying; they are active respondents to the situation. Dima, in presenting the viewers pictures of the campaign’s method and photos of the public gardens in Beirut has constructed a close relationship between the people and the subject, which is conducted through beneficial discourse.

Reminding is “explicitly calling attention to the erasure of an important area of life in a particular text or discourse and demanding that it be brought back into consideration”
He stated that the focus of much environmental, ecological and nature writing contributes to place and dwelling. Reminding is constructed in the process of calling back to the minds and feelings of the people the Beirut gardens, many of which have disappeared:

Some of them turned out to be roundabouts, some of them had disappeared completely. Even one of the places on that list we had to pass by it three times to realize it was considered a garden.

She has been surveying the places of public gardens in Beirut, encouraging them to help to make them important and worthy of consideration. These marginalized gardens represent what Stibbe (2015, p. 146) called erasure: It is a story in people’s minds that an area of life is unimportant or unworthy of consideration. It is noted that erasure, reminding and salience are important techniques in eco-linguistic analysis. They enable Dema as a TED speaker to construct cognitive structures of the talk and formulating its ideologies. All linguistic devices manipulated in these three interrelated techniques, i.e., activation, grammatical structures, lexical items and phrases, embedding, metaphors, material and mental processes, as well sense images enhance the beneficial interrelationship between man and the environment.
4.5. Identity

As for identity, it is revealed in the heavy use of the pronoun *we* which is repeated about forty times. As Halliday (2004, p. 179) puts it, this is “a direct expression of commonality [which] occurs when the pronoun “we” places both the author and the non-human into the same participant role”. Dima broadens the concept of community in relation to ecological identity. It is the story about what it means to be a particular kind of person. It addresses a category of individuals, which denotes that those individuals who are green-conscious, construct an identity for restoring their green Beirut. According to Stibbe (2015, p. 115):

A key way of building ecological identity into texts is through the pronouns ‘we’ and ‘our’, which position certain participants as being within the ingroup. In everyday speech, these pronouns typically carve out a group of humans, but in New Nature Writing they are often used to bring together humans and nonhumans.

Identity is shown in Dima’ use of *we, us, our, our right, our city* giving the audience the feeling that they belong to the campaign of enhancing the awareness of greening gray Beirut, a desirable ingroup of people which is better than other outgroups. The pronoun *we* is used to reach the audience directly, and connects them to the issue of greening Beirut, giving the sense of togetherness.
Conclusion

As it has been mentioned in the abstract of this paper, its objective agrees with the ecosophy of eco-linguistics which pertains sustainability and harmony among all living beings and nature. More specifically, it aims to show how linguistic features come together to form particular worldviews, ideologies and cultural codes, that is the cognitive persuasive effect of Dima’s TED talk. The stories in Dima’s talk, with the way of its presentation, exploiting both logical and emotional modes of communication are the cognitive structures created in the minds of multiple individuals (the audience in the event and the viewers of the video) in a particular socio-cultural context, i.e., Greening Gray Beirut.

It sheds light on how urban responses to climate change, concerning green digital discourse is seen. Dima Boulad’s TED talk has been analyzed as the sample data for this paper. A descriptive qualitative model of analysis based on Stibbe’s (2015) eclectic eco-linguistics framework is adopted for the analysis. It is considered eclectic, in the sense that a range of theories from linguistics (critical discourse analysis, cognitive semantics, appraisal, multimodality etc.) and cognitive science is brought together to reveal the stories we live by.

The study concludes that in illustrating the ideologies and objectives of Greening Gray Beirut, the eight stories or techniques in Stibbe’s framework, i.e., ideologies, framings, metaphors, evaluations, identities, convictions, erasure, and
salience are manipulated to give a beneficial constructive digital discourse. This answers the first question in the research as it has been found that framing with metaphor; conviction, evaluation with facticity; salience, reminding with erasure, as well as identity are underlying the ideologies in this digital video TED talk as has been shown in the analysis. Thus, ideology is the most dominant story, which is conducted via the other stories, which gives the answer of the second question. The stories we live by in green discourse campaigns have been achieved via the deployment of the linguistic tools and techniques employed in Dima’s talk. These linguistic features include: transitivity (material, mental, and behavioral processes), various grammatical forms (declaratives, assertive statements, commands, interrogatives), activation, metaphors, anecdotes, modality, positive appraisal lexis and phrases and embedding. They are shown in the limited extracts, selected for the analysis of each story from the talk. Dima has inspired the audience to have positive beneficial actions towards their city.

It should be mentioned that the analyzed extracts are said in Arabic, the English examples are the subtitling of the Arabic as they are in the video. TED talks as a means of social media communication gives vast arena to various ecological, social, political, religious issues, and Stibbe’s linguistic framework can be put into action in analyzing this wide range of texts from different areas of life. As eco-linguistics is still a young discipline, further
research investigating various genres and registers is recommended. Such linguistic data as eco-themed lyrics, advertisements, children’s literature, and political discourse require further investigation using Stibbe’s model of analysis.
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Samayoa, P. (2017). The Extent of Influence That Genre Conventions Have on TED Talks. *Megan*


Policy Group Sayel Cortes Berrueta Public Administration and Policy Group. Agatha Siwale


<table>
<thead>
<tr>
<th>English Target Text TED translation</th>
<th>Arabic Source Text</th>
</tr>
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<tbody>
<tr>
<td>1- <strong>I want</strong> you to <strong>remember</strong> one number today:</td>
<td>أريد منكم اليوم أن تملؤوا رقماً واحداً</td>
</tr>
<tr>
<td>2- 0.8 square meters.</td>
<td>0.8 متر مربع</td>
</tr>
<tr>
<td>3- 0.8 square meters</td>
<td>0.8 متر مربع</td>
</tr>
<tr>
<td>4- <strong>This number represents the amount of green space which each one of us in Beirut enjoys.</strong></td>
<td>يشكل هذا الرقم المساحة التي يتمتع فيها كل منا من الخصائص في بيروت.</td>
</tr>
<tr>
<td>5- So this number, 0.8 square meters, is almost as wide as the chair you are sitting in.</td>
<td>أي أن هذا الرقم 0.8 متر مربع يماثل تقريباً مساحة الكرسي الذي تجلس عليه حالياً.</td>
</tr>
<tr>
<td>6- Let me show you how big that is; it's that big.</td>
<td>ولأني لم تكن هذه المساحة، فهي هذا القدر.</td>
</tr>
</tbody>
</table>

**According to the World Health Organization**

7- for a city to be healthy, it needs to have a minimum of 9 square meters of green space. | لكي تكون مدينة صحية يجب أن تكون مساحة أقل من 9 أمتار مربعة. |

8- **See how much less we are from the minimum requirement?** | دعني أخبركم كيف بدأت في اكتشاف كل هذه الأرقام. |

9- **Let me tell you how I started discovering all these numbers.** | منذ سبع سنوات سافرت إلى باريس حتى أكمل دراسي، |

10- Seven years ago, I moved to Paris to continue my studies. **While I was there, I fell in love with** | وعندما كنت هناك، وقفت في غرام المساحات الأخضراء. |

- كتب آورز في كل يوم حديثة أو مساحة خضراء. |
- في الصباح والأنسجى قهوة، أو في ما بعد الظهيرة، |
- عوضاً عن تناول شطائري على المكتب أو في المساء عندما أود الخروج مع أصدقائي. |
- وتم تأثير هذه المساحات الخضراء على إنا عندما عدث إلى 0.8 متر مربع الموجودة فيه بيروت. |
- شعرت بالضيق والانزعاج، وبأن هناك شيء خاطئ. |
- آنديرون ما أكثر ما يشعرني بالضيق؟ |
- أن بيروت لم تكن هكذا من قبل. 14
11– Each day, I would go to a garden or a green space; in the morning while drinking my coffee, at lunch time, instead of eating my sandwich on my desk, and at night, if I wanted to meet up with friends.

12– I didn't notice how affected I was by those places until I came back to the 0.8 square meters per person in Beirut.

13– I felt frustrated, suffocated. I felt something was wrong.

14– And do you know what is the most frustrating?

That Beirut wasn't like that.

15– Beirut was green, it had green spaces.

16– It was green like that, and it's turning gray like that.

17– We are stripping Beirut from its green spaces.

When I came back to Lebanon

18– I started talking about the subject around me.

I felt I had to do something.

19– I started talking to people around me about the frustration.

بل كانت خضراء كن فيها مساحات خضراء 15.

١٦– هكذا كانت، وإلى هذا الشكل تتحول فنحن نقوم بتجريد بيروت من مساحاتها الخضراء.

١٧– عندما عدت، بدأت بالتحدث مع من حولي عن هذا الموضوع لأنني شعرت بأن علي القيام بأمر ما، فينفات أصف لهم ما أشعر به من ضيق.

عندها، التقت بصديقتي لي وقرنا أن نقوم بشيء ما.

قمنا بتصميم إشارات تشبه إشارات البلدية، تتمتع بالفسحة الخضراء.

وطلبتنا من تجار أن يصنعوا لنا حاملات خشبية.

إتصلنا منطقة البقاع، وطلبتنا منهم بعض الحشائش.

١٩– ونصبنا إشارات تشوب إشارات البلدية، وتتمتع بالفسحة الخضراء.

١٨– لأنني شعرت بأنني أشعر بمضيق.

١٧– إتصلنا بمنطقة البقاع، وطلبنا منهم بعض الحشائش.

١٦– نحن نقوم بتجريد بيروت من مساحاتها الخضراء.

١٥– كانت خضراء كن فيها مساحات خضراء ١٥.

١٦– ، وصبرنا شعوراً مشابهًا، نحن نقوم بإصلاح أشياء.

١٧– طلبتنا كثيرًا أن يجعلوا لنا حاملات خشبية.

١٨– نحن نقوم بتجريد بيروت من مساحاتها الخضراء.

ئخذنا المساحة الخضراء ٠.٨ مترًا مربعاً من الحشائش، مع لافتة مكتوب عليها "تفع بالفسحة الخضراء".

١٩– كان الناس يستيقظون صباحًا.

٢٠– وكان الناس يستيقظون صباحًا.

١٩– كان الناس يستيقظون، لكنهم مع ذلك شعرنا أن هذا الأمر معهم.

٢٠– وكان الناس يستيقظون، لكنهم مع ذلك شعرنا أن هذا الأمر معهم.

١٨– وكان الناس يستيقظون، لكنهم مع ذلك شعرنا أن هذا الأمر معهم.

١٧– وكان الناس يستيقظون، لكنهم مع ذلك شعرنا أن هذا الأمر معهم.

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١٣– كان الناس يستيقظون، لكنهم مع ذلك شعرنا أن هذا الأمر معهم.

١٢– كان الناس يستيقظون، لكنهم مع ذلك شعرنا أن هذا الأمر معهم.

١١– كان الناس يستيقظون، لكنهم مع ذلك شعرنا أن هذا الأمر معهم.
that I was feeling.
20- At that time, I met my friend, and we decided to do act.
21- We designed signs that look like the street municipality signs: "Enjoy your green space,"
22- we went to a carpenter and asked him to make wooden stands for us.
23- We called to Bekaa and ordered some grass.
No! Not that kind of grass.
(Laughter)
24- We sorted all our things in the car, and woke up at a.m.
25- that day to put these interventions in nine locations around Beirut.
26- On the Corniche, on Bliss, Hamra, Cola, Furn El Chebbek.0.8 square meters of green grass with a sign that says, "Enjoy your green space."
27- People waking up at 5 a.m. or 6 a.m. were looking at us, approaching us with surprise and asking what we were doing.
28- People were confused but felt like it was a cause that concerns them
29– They were giving us the thumbs up.
30– There was even a lady who was jogging and who stopped by and told us, "You could have made it smaller!" (Laughter)
31– We felt that this cause was one that was meaningful to all of us, so we decided to go bigger the following year.
32– We called the Bekaa again and ordered a bigger quantity of grass, and we organized a day in Sassine Garden.
33– We called this pop-up space "Sassine Garden."
34– More than 400 people came that day. And they came to say one thing: "We need more public green spaces in Beirut."
35– People were having fun! People we know came by, people we don't know came by, there was even one lady who was passing by, stopped to ask what we were doing, to whom we told that was a pop-up park for one day so she went back home, got her book and joined...
us. We spent the day there.
At the end of it, we really felt as if we didn't want to leave. We wished it wasn't a one-day event.

36– We really felt that this was our right; if we needed to have the same day out in a garden, where would we go?
It's just what you are going to tell me.

37– In Lebanon, we still have a lot of rights that are still unmet. You're dreaming! What are you talking about?

38– But we shouldn't forget that before the electricity is provided for us, public green spaces are a necessity. Yes! A necessity.

39– There's electricity, there's water. But there's also our health. Green spaces help us to be healthier by cleaning the air around us.

40– Also, there is the children's right for leisure and play.

41– If kids want to go out and play, where would they go?
And on the contrary, because we
live our daily life stressed in Beirut, then more than anybody we need those **public spaces to relieve ourselves from the stress**.

This was our starting point. **We formed a collective.** 42-**We believed we could do something** We gathered around the concept of the right, the right to have public green spaces in Beirut.

43- The first question we asked ourselves was:

“How well do we really know Beirut?” Maybe not much.

44- So, we decided to pick a different garden around Beirut every two or three weeks, and discover it through meeting up in it on lunch time.

45- The first time, three people showed up, the second time, five, and the third time, ten people.

We started meeting up in gardens around Beirut.

On one of lunch breaks, an incident happened that caught our attention. We were meeting in William Hawi Garden in Ashrafieh on that day,
when two people came up to us. They live three minutes away from the garden. They approached us and told us:

46-“Can you imagine we've never seen or been to this garden before?”

47-Why?

Why do we feel this issue doesn't concern us?

Why do we always feel this is for other people?

And not for us?

We had a lot to work on.

48-But we knew where to start.

Before asking for more public green spaces, we have to start by using what we have.

49- We knew what we had to do: a map. A map that shows all the public green spaces that we have.

50- We went to the municipality for some help as we thought all spaces and information would be stored in one clear place.

51- Not at all. We got a handwritten paper, with a lot of spaces! We took that list to assess which ones from these places were there and which weren't. Some of

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them turned out to be roundabouts, some of them had disappeared completely. Even one of the places on that list we had to pass by it three times to realize it was considered a garden.

But I'll tell you something. Not the whole list was disappointing. We went down, took pictures of those spaces, gathered information, and stories.

52– After that, we sorted all those spaces out, and we got a number; a good number.

And today I want to ask you about it. I'll give you three choices.

53– Who here thinks we have between three and seven public green spaces?

OK. Not too many.

54– Who here thinks we have between eight and 13?

More people than before.

55– Who thinks we have between 14 and 18 public green spaces? More.

56– Who hasn't replied to my question at all today?
I'll join you by raising my hand as well.

57- The right answer is the last one, none of the above. We have more than 24 public green spaces in Beirut.

58- This number is surprising, it surprised even us because we realise that we didn't know this. And it would be good to ask ourselves: "Why don't we know about these spaces?"

59- We worked on this map to visualize them.

60- You can now go to the website and access all the information there.

61- This was for us a very important starting point because we felt that we can start working from there. These 24 spaces are the starting point.

62- I'll explain myself. The more we use those spaces, the more we would be actively saying that we need more, the more we would be asking for our right to have more than the 0.8 square meters.

63- The more we use them, the
more we would be putting pressure on decision makers by saying that we are willing to help to increase those spaces.

64– Here are some ways to do that:

if you have a meeting in Mar Mkhaiel, go on for a few extra meters to Karantina and have your meeting there.

65– You want to go jogging? Try going to Sanayeh, it has a new beautiful running track.

66– If you want to go and play with your kids, try Sioufi Garden which has a great space.

67– Do you want to even hold a concert? Why don't you think about Gebran Khalil Gebrans Garden?

68– And last but not least, the most important place of all: Horsh Beirut. Horsh Beirut is the biggest public park we have in Beirut and it's been closed to the public for more than 10 years.

69– How are we OK with the fact that a surface of 330,000
square meters is one we still cannot access and enjoy?
70– I don't know if you've ever been to Horsh Beirut for any of the events when it is open to the public. It is very nice, very nice. And it can be even better.
71– Why are we OK with the fact that this is a right that's not ours?
72– The municipality is promising us that Horsh Beirut would be open in 2015. Let us tell them that we are here and we are waiting for them to open up the gates.
There is also another way to help out:
the municipality has an ongoing project called "Beirut is Wonderful,"
73– They're taking one garden after the other and fix them. They're partnering up with the private sector and the companies to rehabilitate our gardens.
74– If you have any idea of how you can help with that, let them know.
75– If you have a greenhouse, a
company that produces benches, let them know.

76– Because it's together, all of us in here that we can start making things better.

77– If we don't talk, nothing will happen.

78– And together, we can start looking at our city in a different way because it's not true that there is nothing to do, it's not true that things are just like that. We can do small things that would change things a lot.

79– It's not true that we don't have space to have more green spaces.

80– We were just talking about Sassine. Imagine that Sassine Square can be turned from Grey to green.

81– All we have to do is imagine together, and it's not that difficult to do.

82– I'll tell you something: they say that change happens little by little with one step.

83– Today, I'm going to challenge that and tell you that change happens little by
little with one story.
If all of you today go and tell one person about those 24 places, – how many are we today? 1,000?
There, we're 2,000 now – if the 2,000 of us go and tell only one other person, we'll double.
84– Because it's this way that we can start helping, and this is how we'll be claiming our right.
85–Just like the lady who was on Sassine Square after her walk in Beirut and discovered its green spaces, go home to get your book and come back and sit. This is how we will be really helping Beirut.
Thank you,

Dima Boulad “Greening Gray Beirut”
The link of the video
Greening Gray Beirut – Dima Boulad TEDxBeirut
https://youtu.be/QaTc_FZ805U