

Appraisal Patterns in Selected Speeches in COP27: A Cross-Linguistic Eco-Critical Discourse Analysis Study

“COP27 中选定演讲的评价模式：跨语言生态批评话语分析研究”

By:

Prof. Miranda Mohamed Khamis El-Zouka

Professor of Linguistics

English Department, Faculty of Arts, Damanhour University

melzouka@art.dmu.edu.eg

أنماط التقييم في خطب مختارة في الدورة السابعة و العشرين لمؤتمر المناخ: دراسة لغوية نقدية بيئية
مقارنة

أ.د. ميراندا محمد خميس الزوكة

أستاذ اللغويات- قسم اللغة الإنجليزية

كلية الآداب- جامعة دمنهور

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Abstract

Climate change is a serious ecological problem that faces humanity in the modern world because of its destructive effects on both human beings and on the physical natural environment where they live. The current study deals with the appraisal patterns used by some heads of states and officials in some of their speeches delivered during COP27 held in Egypt in 2022 in Sharm El-Sheikh. The study is also cross-linguistic as it clarifies similarities and/or differences between English and Arabic regarding the appraisal patterns used. Moreover, it offers a quantitative analysis concerning the frequency of the appraisal patterns used in the data under investigation. The methodology adopted is that of Stibbe (2015a), and

the focus is on the model devoted to appraisal patterns. The study reveals a number of important findings, one of which is that implicit positive appraisal is the most commonly used technique in the analysed data.

Key words: Ecolinguistics, Climate Change, Appraisal, COP27, Speeches.

الملخص العربي:

إن تغير المناخ هو أحد المشاكل المهمة التي تواجه البشرية في العصر الحديث لما لها من آثار مدمرة علي كل من البشر والبيئة الطبيعية التي يعيشون فيها. يدرس البحث أنماط التقييم المستخدمة من قبل بعض رؤساء الدول والمسؤولين في بعض خطبهم التي ألقوها خلال الدورة السابعة والعشرين لمؤتمر المناخ الذي عقد في مصر في 2022 في مدينة شرم الشيخ. وبعد البحث أيضا دراسة لغوية مقارنة لأنه يوضح أوجه الشبه والاختلاف بين اللغتين الإنجليزية والعربية فيما يخص أنماط التقييم. كما يقدم البحث تحليلاً كمياً لأنماط التقييم المستخدمة، حيث إنه يبين نسب استخدامها في الخطب الإنجليزية والعربية قيد البحث. ويستخدم البحث المنهج الخاص بستايب (2015a)، ويتم التركيز على الجزء الخاص بأنماط التقييم. ويظهر البحث العديد من النتائج المهمة والتي منها أن أنماط التقييم المستترة هي الأكثر استخداما في الخطب الإنجليزية والعربية قيد التحليل.

الكلمات المفتاحية: علم اللغة البيئي، تغير المناخ، التقييم، COP 27، الخطب.

Introduction

Ecolinguistics is a relatively new branch of linguistics that expresses the relation between language and ecology. Climate change is one of the most serious problems that faces the human race due to its drastic effects on the lives of all living species. The United Nations holds the COP conference annually to discuss the different ways to combat the negative effects of climate change. The present study aims at showing the appraisal patterns used by some political leaders and officials during the COP27 held in Egypt in Sharm El-Sheikh in their speeches. The data includes English and Arabic speeches to clarify similarities and/or differences in the two languages. The analysis is done using Stibbe (2015a) model, and the focus is on the appraisal patterns mentioned in this model.

Aims of the Study

The study aims at providing an ecocritical discourse analysis of selected speeches delivered by some heads of states and officials during COP27 in Sharm El-Sheikh. The study investigates the appraisal patterns used in the selected speeches to appraise some of the critical issues related to climate change and its destructive effects on the human kind, and it also clarifies if other devices can be added to Stibbe's (2015a) appraisal patterns model. The study also presents a contrastive analysis of the appraisal techniques used in the selected English and Arabic speeches to show similarities and/or differences between the two languages. Moreover, the study presents a quantitative analysis to show the frequency of

usage of the linguistics appraisal devices used in the English and Arabic speeches under investigation.

Data and Methodology of the Study

In this study, six speeches are investigated. Three are in English and three are in Arabic. The three English speeches are: one delivered by the American President Joe Biden, one by the British Prime Minister, Rishi Sunak, and the last by Simon Stiell, the UN Climate Change Executive Secretary. The three Arabic speeches are two delivered by the Egyptian President Abdel Fattah Al-Sisi and one by King Abdallah ben El-Hussein of Jordan. These speeches are selected because they have been delivered by high-ranking heads of states and government officials. The American President Joe Biden and the British Prime Minister, Rishi Sunak represent two important industrial countries in the world; namely the United States of America and the United Kingdom, respectively. Thus, it is important to know their ideologies regarding the negative effects of the climate change crisis, especially that these two countries are industrial ones, so they are partly responsible for the pollution that planet Earth suffers from. In addition, Simon Stiell is the UN climate change executive secretary, and this conference is under its sponsorship. The UN aims at coordinating the efforts of all countries to overcome the effects of climate change. President Abdel Fattah Al-Sisi is the Egyptian president of the hosting country. He has established many projects in Egypt related to using clean energy from natural non-polluting renewable resources. King Abdallah of Jordan is one of the popular Arab heads of states, and is known for his serious efforts in using clean energy resources.

The data has been collected from various websites. These are: Al-Ahram Gate, the Arab Republic of Egypt Presidency, the Jordanian newspaper Al-Ghad, the White House, the website of the United Kingdom government and the United Nations Climate Change website. In the analysis section, extracts from the analysed speeches are chosen. In the analysed extracts, the words and phrases that indicate appraisal patterns are underlined for ease of clarification.

The methodology used is that of Stibbe (2015a) model, and the focus is on the appraisal patterns model that he proposes. This methodology has been chosen because it is detailed and indicative. Moreover, Stibbe's (2015a) model is very famous in the field of applied linguistics as it clarifies the relation between language and ecology. Also, the appraisal patterns under analysis are very revealing of the ideologies of the speakers regarding the crisis of climate change.

Theoretical Background

Ecolinguistics is a branch of linguistics which explores the relation between language and ecology. Ecolinguistics views ecology as "the interaction between living organisms and their physical environment" (Stibbe, 2015, p.8). It analyses and criticizes all the levels of the language system; i.e. syntactic, lexical, pragmatic and stylistic (Alexander & Stibbe, 2014,

p.1). Ecolinguistics maintains that language is related to many aspects of human life, such as economy, politics, psychology and biology. Thus, it studies the relation between linguistic units and structures with the human ecological environment (Derni, 2008, p.27). It investigates the linguistics patterns used by people to express the way they view the world and the environment around them. Various linguistics devices and patterns can be used to express their world views as well as shared values and beliefs about the environment in which humans live (Gavriely-Nuri, 2012, p.80).

There are many definitions for ecolinguistics. Alexander and Stibbe (2014, p.1) define *ecolinguistics* as studying the effect of language on the life-sustaining relationships among humans, other organisms and the physical environment. It deals with the way people use language to maintain or destroy relations between humans, other organisms and the environment where they live. Steffensen and Fill (2014, p.4) also define it as the study of the activities in which humans exploit their environment to create “an extended, sense-saturated ecology that supports their existential trajectories”. In addition, Fill and Penz (2018) define it as the critical analysis of language that can increase the destruction of the ecological aspect of life and aims at finding a way for humans to protect nature. Finally, Song and Tang (2020, p.598) define it as a branch of linguistics which investigates the way language is used to represent the ecosystem, ecology and ecological phenomena from the ecological and sustainability perspectives.

The term “ecolinguistics” emerged in the 1990s (Wu, 2018, p.646). Einar Haugen (1972) is the first linguist who used the term “ecology” in linguistic studies to manifest the relation of languages to each other and the places where these languages are spoken. He defines “language ecology” as the study of interaction between any human language and its environment. It can be said that Haugen’s ecological stance paved the way for the birth of ecolinguistics in the 1990s. Halliday’s paper “New Ways of Meaning” marks the beginning of ecolinguistic studies. He maintains that issues as pollution and destruction of some living species are problems for the applied linguistic community. He also indicates that linguistics should consider the environment in which the language is used (Dash, 2019, p.380).

There are two approaches in ecolinguistics: Haugen’s model and Halliday’s model. The former considers language to be a part of “a larger ecology that depends on the interaction among human’s society and natural environment” (Haugen, 1972, p.157). He came up with the concept of “ecology of language” which explains the relation between language and environment. Thus, the social context in which language is used helps in understanding linguistic behaviour. The latter adopts a functional approach using Systemic Functional grammar to show the relation between language use and environmental degradation. Hence, “Systemic Functional Grammar can be used to solve language problems in ecology and ecological problems in language” (Halliday, 2009, p.61). Halliday focuses on the influence of language use on the natural environment (Zuo, 2019, p.119).

Ecological discourse analysis deals with the effect of discourse within an ecological framework on human society and on ecosystems that life depends on. It includes racism, sexism and oppression in the human world. It also deals with environmental issues such as

climate change, biodiversity loss, environmental degradation, forest fires, desertification, endangered species as well as issues related to human beings and their relation with other species and the physical environment (Dash, 2019, p.3882; Wei, 202, p.306).

Eco-critical discourse analysis aims at showing the relations between language and various ecological phenomena. It applies principles of critical discourse analysis to texts, spoken or written, about the environment (Derni, 2008, p.24).

There are three types of discourse that ecolinguists deal with. The first is “destructive discourse” that encourages people to engage in ecologically destructive behaviour. The second is “ambivalent discourse” that mitigates some of the destructive effects caused by destructive discourse. The third is “beneficial discourse” which constructs the world in new ways that to the protection and preservation of the ecosystems which support life (Stibbe, 2012, 2015, p.2).

There are many methods used in eco-critical discourse analysis, one of which is Stibbe (2015a) who has succeeded in explaining the relation between ecology and language in ecolinguistics. Stibbe (2015a) provides an analytical framework by involving the ideas of the stories we live by relating them to theories such as Framing, Appraisal and Identity. He includes eight discourse strategies or stories, as he calls them. These strategies are ideologies, framing, metaphors, evaluations, identities, convictions, erasure and salience. These strategies clarify the role of language in finding solutions to ecological and environmental problems (Chen et al., 2021, p.7). Each of these stories or strategies includes some of the lexico-grammatical linguistic features that help in raising ecological awareness (Stibbe, 2015a, p.20).

The ideology ecolinguists use to judge various discourses is expressed through an ecological philosophy or “ecosophy”. Ecolinguists can use various ecosophies to judge a piece of discourse. The analyst’s ecosophy can change because of the experience he gains in the world (Stibbe, 2015b, p.3). The ecosophy of ecolinguists consists of their values, views and beliefs. Thus, their ideologies could be judged by their ecosophy. In fact, ecosophy can help in the analysis process in eco-critical discourse analysis to from judgements about the speaker’s or writer’s ideology and the way it is manifested in actual texts, whether spoken or written (Zuo, 2019, p. 1192).

Evaluation refers to the way a speaker/writer conveys his beliefs and opinions in discourse to achieve consensus of values regarding what they indicate (Hart, 2014, p.2). Evaluation in ecolinguistics can be studied using *Appraisal Theory*. Appraisal refers to “the semantic resources used to negotiate emotions, judgments and evaluations alongside resources for amplifying and engaging with these evaluations (Martin, 2000, p.145). Therefore, appraisal refers to evaluative uses of a given language which include the stance adopted by the speaker/writer. *Appraisal Theory* is an approach to describe and explain the way language is used to evaluate things, whether positive or negative, and to manage interpersonal positioning and relationship (White & Eldon, 2005). Appraisal is related to interpersonal meaning because it provides an analysis of linguistic devices through which the speaker/writer

constructs his stance and identity. The stance adopted by the speaker/writer is towards the issue he presents and those with whom he communicates (Martin & White, 2005, p.14).

The different linguistic patterns of appraisal in a text can form a given mood called “prosodic patterns of appraisal choices” (Martin & Rose, 2003, p.51). An appraisal pattern is when something is described as being positive or negative in texts. These patterns reflect the stance of the speaker/writer, and this, in turn, indicates the kind of community set up around shared values (Martin & Rose, 2003, p.54). The community includes the speaker/writer of a given text, which appraises an area of life positively or negatively. The listener(s)/reader(s) can either accept or refuse the appraisal pattern. Appraisal is important in ecolinguistics because of the power it possesses to influence the way people think about a given ecological issue, whether positively or negatively (Stibbe, 2015b, p. 83).

Using appraisal and evaluation in languages has many functions. The first is “attitudinal positioning” through which the speaker/writer expresses a positive or a negative assessment of people, things and places. The second is “dialogistic positioning” through which the speaker/writer is involved in a communicative interaction, so he responds to prior utterances and anticipates new ones. Finally, the third is the “intertextual positioning” function in which the speaker/writer adopts a certain stance towards the views of the other speaker(s)/writer(s) (White & Eldon, 2005).

Appraisal Theory, in brief, includes three systems: attitude, engagement and graduation. *Attitude* is divided into three subcategories. The first is *affect* which deals with how a speaker/writer evaluates and expresses emotions towards people, things or events (Bednarek, 2006, p.19). The second subcategory is *judgment* where human behaviour is evaluated positively or negatively by relating this behaviour to societal norms and values (Bednarek, 2006, p.28; White, 2011, p.18). The third subcategory is *appreciation* in which natural phenomenon, objects and entities are assessed, either positively or negatively, by reference to their value in a given field as well as other systems of social evaluation (White, 2011, p.17). *Engagement* is evaluation related to the use of various voices. It deals with the way a speaker/writer places himself in relation to the audience or to propositions indicated in a given text. *Graduation* is evaluation related to intensification. Evaluative meaning can be escalated or downgraded. *Graduation* is used to express attitude to show greater or lesser degrees of positive or negative feelings (White, 2001, p. 2). It can also be used to increase or decrease the level of involvement of the speaker/writer in a given discourse (Gales, 2011, p.30).

In ecolinguistics, there are linguistic devices that are used to appraise areas of life both positively or negatively. These are called “appraising items”. (Martin & White, 2005). These include explicit appraising items such as “good/bad, right/wrong”. Words that explicitly express positive or negative appraisal even when taken out of context are called “attitudinal terms” (White, 2004, p.231). Another device is implicit appraisal items that can have positive or negative connotations depending on the context of use such as “fresh/spoiled, interesting/boring, growing/shrinking” and metaphors. Other devices are prefixed words such as “unhappy, disapproval” as well as their unmarked opposites as “happy, approval”,

and grammatical structures as “the threat/ danger of—” that express negative appraisal (Stibbe, 2015a, p.84). Sometimes words can cluster together to form an appraisal pattern that can have a commutative effect (Alexander, 2009, p.140).

Speaking publicly is important due to the effect of what is said on the general public. Thus, a public speaker must be very careful regarding what he/she says. The purpose of public speaking is to convey correct and comprehensive information to the public (Markovic, 2000, p.13). Speeches usually convey the ideology of the speaker regarding various issues of general interest (Wodak, 2004). Through speeches a speaker can enforce, legitimize or delegitimize certain policies or actions to win the support and trust of the general public (van Dijk, 1997, p.3).

From the 6th to 8th November 2022, Egypt hosted the 27th session of the Conference of Parties (COP27) in the city of Sharm El-Sheikh under the theme “Together for Implementation”. In the conference, there were heads of states and governments officials from all over the world to combat the dangers of climate change to arrive at serious solutions to mitigate the negative effects of this threat through joint actions and efforts from all governments of the world. The program of the conference included panel discussions, round tables and many other events on the margins of the conference (Ministry of Communications and Information Technology, n.d.). The event has also included discussions which have focused on enhancing implementation in many ecological issues. The attendees included heads of states, heads of UN agencies, governmental agencies and civil society representatives to find solutions to some climate change challenges, including mitigation, adaptation and financing these actions (United Nations Environment Programme, n.d.).

There are previous studies in ecolinguistics. Yuniawan (2018) provides an ecolinguistic analysis of conversation news texts in the Indonesian mass media. She maintains that the ecolexicon includes base words derivative words, noun phrases, verb phrases and adjectival phrases. Fouad (2019) also investigates salience and erasure techniques used in selected Egyptian newspaper articles about the Swine Flu disease using Stibbe (2015a) as the base of the analysis. In addition, Zuo (2019) provides an ecological discourse analysis of the report of the Communist Party of China in the 19th national Congress. He presents his analysis using Halliday’s Functional Grammar. Furthermore, Mansyur (2021) investigates ecological and climate change aspects in the statement of the Indonesian President at the COP21. He uses Fairclough’s model as well as Stibbe’s ecolinguistic model. To the researcher’s knowledge, there are no studies about the appraisal patterns used in the speeches delivered during COP27. Thus, this research fills this gap.

Analysis

In this section, extracts from the English and Arabic speeches under investigation are analysed.

Extract (1)

Good afternoon everyone...In the United States, we're seeing severe wildfires in the West, devastating hurricanes and storms in the East...Here in Africa, four years of intense drought in the Horn of Africa...Meanwhile, the Niger River in West Africa woollen because of intense rainfall...I'd like to share with you how the United States is meeting the climate crisis with urgency and determination to ensure a cleaner, safer and healthier planet for all of us...Through a generational investment in upgrading our nation's infrastructure, we're making our power grid better able to transmit clean energy, expanding public transit and rail, building a nationwide network of electric vehicle charging station...and the sum total of the actions my administration is taking put the United States on track to achieve our Paris agreement goal of reducing emissions 50 to 52 percent below 25 levels by 2005...This includes support for expanding yearly warming systems to help Africa, broadening access to climate finance, providing disaster-risk protection, strengthening food security, mobilizing the private sector, and supporting a new training centre in Egypt to accelerate adaptation across the effort all across the continent... No action can be taken without a nation understanding that it can use clean energy as a weapon and hold the global economy hostage. It must stop...This progress is being driven by young people all across America...That's why, as I look out, of all the things that I've accomplished, with so much more to do, I'm optimistic....

(Biden, 2022)

The above extract is taken from the speech of the American President, Joe Biden during COP27. He clarifies some of the consequences of climate change as well as the measures taken by the American government to overcome this problem. He also discusses the kind of help and support provided by the United States to other countries in this respect.

President Biden in his speech uses many linguistic devices that indicate appraisal. He uses words that express implicit positive appraisal, such as in:

-This progress (noun) is being arrived at by young people.

...I've accomplished (past participle verb)...I'm optimistic (adjective).

The underlined words of different grammatical categories all indicate the upcoming positive effects of the efforts exerted to combat the crisis of climate change.

Phrases are also used to implicitly express positive appraisal. For example, in the phrase “a cleaner, safer and healthier planet for all of us”, Biden uses coordinated adjectival phrases, and they are all in the comparative form to create a positive appraisal pattern to show that the aim of combating climate change is to ensure a clean and a healthy environment for human beings. There are other phrases that indicate positive appraisal such as:

-...upgrading our nations' infrastructure...

- ...expanding public transit...building a nation-wide network of electric vehicle charging station....

-...reducing emissions, 50 to 52 percent...

-...expanding yearly warming systems to help Africa, broadening access to climate finance, providing disaster-risk protection, strengthening food security, mobilizing the private sector, and supporting a new training centre in Egypt to accelerate adaptation....

In these phrases, President Biden uses the structure “gerund+ NP” to clarify the efforts exerted and measures taken to overcome the dangers of climate change.

There are phrases that express negative appraisal, such as:

Severe wildfires in the West

Devastating hurricanes and storms in the East

Four years of intense drought

Intense rainfall

The underlined structures are all nouns “wildfires, hurricanes, storms, drought, rainfall” preceded by adjectives “severe, devastating, and intense” and the sequence (adj+N) form a NP. All these NPs clarify some of the negative effects and dangers of climate change.

Metaphors are also used by President Biden as in:

“...it can use clean energy as a weapon and hold the global economy hostage....”

The two metaphors are “clean energy as a weapon” and “hold the global economy hostage”. In the first, “clean energy” is compared to weapon to show that using clean energy is a way to combat the effects of climate change crisis. In the second metaphor “global economy” is compared to a hostage to clarify that global economy will be under the mercy of using clean energy because it is the only way to vitalize the economy all around the world.

Extract (2)

When her late majesty queen Elizabeth II addressed COP26 last year, she reflected how history has shown that when nations come together in common cause, there is always room for hope... The UK, which was the first major economy in the world to legislate for net zero, will fulfil our ambitious commitment to reduce emissions by at least 68% by 2030... Because there is no solution to climate change without protecting and restoring nature in Glasgow, more than 140 countries which are home to over 90% of the world's forests made a historic promise to halt and to reverse

forest loss and land degradation by the end of this decade... We will now triple our funding on adaptation to £ 1.5 billion by 2025. Let me tell you why. First, I profoundly believe it is the right thing to do. Listen to Prime Minister Mottley of Barbados, as she describes the existential threat by the ravages of climate change or look at the devastating floods in Pakistan, where the area underwater is the same size as the whole United Kingdom. When you see 33 million people displaced... you know it is morally right to honour our promises... In Glasgow, we began an approach globally... using aid funding to unblock billions of pounds of private finance for the development of new green infrastructure... The UK is making further commitments to support this today by investing £65 in a range of green investment projects in Kenya and in Egypt....

(Sunak, 2022)

The extract is taken from the speech of the British Prime Minister Rishi Sunak during COP27. He clarifies the measures taken by the British government to overcome the crisis of climate change.

In the extract, there are words that express explicit positive appraisal as the word “right” in “the right thing to do”. He uses “right” to show his deep belief that the United Kingdom is doing the right action when it has increased funding devoted to combating the effects of climate change.

Sunak also uses implicit positive appraisal, as in:

- ...to reduce emissions...
- ...to halt and to reverse forest loss...
- ...protecting and restoring nature...

The infinitive form “to reduce” and “to halt and to reverse” are used as well as the two gerunds “protecting” and “restoring” to show the serious efforts carried out by the British government to combat climate change.

Implicit negative appraisal is also used by the British Prime Minister, such as:

- ...the existential threat posed by the ravages of climate change...
- ...devastating floods...

The British Prime Minister refers to some of the negative effects of climate change. He uses nouns as “threat, ravages, and floods”. Some of these nouns are preceded by adjectives as “existential” and “devastating” to show the graveness of these effects.

Rishi Sunak uses prefixed words to convey negative appraisal, as in “people displaced”. The word “displaced”, which includes the prefix “dis”, shows that one of the negative effects of

climate change is that people are forced to leave their homes because of the floods and move to other places.

Metaphors are also used in the speech, for example:

-“...for the development of new green infrastructure...”

-“...green investment projects in Kenya and in Egypt...”

The word “green” used in the two metaphors show that the infrastructure and the projects are environmental friendly so as not to harm the environment in any way.

Extract (3)

I must thank my predecessor Patricia Espinosa...Friends, today a new era begins and we begin to do things differently. Paris gave us the agreement...So, this is why I say today, a new era begins to do things differently...The heart of implementation is “everybody”, everywhere in the world, every single day, doing everything they possibly can to address the climate crisis. There are those that are going forward, further and faster than everyone else...The geopolitical situation-the pandemic, the food and energy crises have hit countries and most importantly individuals hard...I want to focus on three critical lines of action...First, we must demonstrate this transformational shift to implementation...The second line of action. We must cement progress on these critical work streams...We need to enable enhanced finance to flow to address the impacts of climate change. What is said in these negotiating rooms has to reflect the urgency required in the outside world...Finally, our third line of action: we must enhance the delivery of the principles of transparency and accountability throughout the process...We made this Agreement only last year. I am not in the habit of rescinding my word I firmly expect all parties to act the same way...As the world pivots to implementation, women and girls have to be placed at the centre of climate decision-making and action. Their empowerment leads to better governance and better outcomes...We have demonstrated the very best in human wisdom, by asking the right questions.

(Stiell, 2022)

The extract is taken from the speech of Simon Stiell, the UN Climate Change Executive Secretary. He discusses some of the consequences of the climate change crisis and what different countries in the world must do to overcome this crisis.

He uses adjectives that express explicit positive appraisal, for instance:

“...Their empowerment leads to better governance and better outcomes...”

The comparative adjective “better” expresses explicit positive appraisal, and the two phrases “better governance” and “better outcome” are coordinated using “and” to emphasize the strong effect of empowering women in the centre of climate change decision making.

Another example is “We have demonstrated the very best in human wisdom by asking the right questions”. The superlative adjective “best” indicates his strong belief in the ability of human beings to combat the climate change crisis. It is also preceded by the intensifier “very” which further asserts this. In addition, the adjective “right” shows that Stiell deeply believes that humans are wise enough to know how they can overcome this serious problem.

Implicit positive appraisal patterns are also used in the speech, for example:

- “--- a new era begins...”

- “...there are those that are going forward, further and faster than everyone else...”

In the first example, the adjective “new” implies that now in the era we live in, all countries must abide by environmental safety. In the second example, “further and faster” are in the comparative form and “forward, further and faster” are coordinated together to create a positive appraisal pattern to show the fact that more and more countries are now on the right track to overcome climate change.

There are also NPs that express negative appraisal, for instance:

“...the pandemic, the food and energy crises have hurt countries...”

The NPs “the pandemic” and “the food and energy crises” clarify some of the negative effects of climate change.

In the analysed speech, there are grammatical structures that are also repeated and indicate positive appraisal, for example:

“We must demonstrate this transformational shift...”

“We must cement progress...”

“We must change the delivery of the principles of transparency and accountability...”

By using the structure (must + bare form of the verb), he indicates the actions that must be taken by all countries to combat climate change. The repetition is used to assert this. This repetition creates a positive appraisal pattern that creates a positive effect.

Metaphors are also used as in “enhanced finance to flow to address the impacts of climate change”. Financial support is compared to a flowing river to show the large amounts of money spent to finance overcoming the negative effects of climate change.

Extract(4)

يسعدني أن أرحب بكم في هذه الجلسة المهمة... لقد حرصت مصر علي الانضمام إلى مبادرة تنسيق عمل المناخ في الشرق الأوسط وشرق المتوسط منذ انضمامها للمرة الأولى في 2019 إيماناً منها بأهمية الدور الذي يمكن لهذه المبادرة أن تقوم به في إطار تنسيق سياسات مواجهة تغير المناخ بين الدول الأعضاء في المبادرة بما يساهم في تعزيز عمل المناخ وجهود التغلب علي آثاره السلبية في محيطنا الإقليمي، وهي منطقة - كما تعلمون - ضمن أكثر مناطق العالم تأثراً بتبعات تغير المناخ وآثاره المدمرة على كل الأصعدة ، و هو ما بات واضحاً بشكل جلي خلال السنوات القليلة الماضية التي شهدت أحداث مناخية قاسية في المنطقة من حرائق للغابات إلى فيضانات و سيول خلفت خسائر بشرية و مادية جسيمة ... والحقيقة أن ما يميز المبادرة عن غيرها من المبادرات والجهود هو المكون العلمي الذي تنطوي عليه، والذي لا غنى عنه اذا كنا نسعى إلى أن تكون جهودنا لمواجهة تغير المناخ متسقة مع أفضل العلوم المتاحة بما يضعنا على الطريق الصحيح نحو تنفيذ أهداف اتفاق باريس....

(Al-Sisi, 2022b)

I would like to welcome you to this important session...Egypt has been keen to join the initiative of coordinating efforts to combat climate change in the Middle East and the Eastern Mediterranean since it first joined it in 2019 out of its belief in the importance of the role this initiative can play to coordinate policies among its members to combat climate change, and to enhance efforts to overcome its negative effects in our region, which is, as you all know, one of the most affected regions in the world by the consequences of climate change on all levels. This has been very clear in the past few years that witnessed severe climate changes in the region starting from forest fires to floods which left behind grave human and materialistic losses...Actually, what distinguishes this initiative from others is the scientific component it includes, which is indispensable if we want our efforts to be consistent with the best sciences available. This puts us on the right track to implement the Paris Agreement...

The above extract is taken from the speech of President Abdel Fattah Al-Sisi in a joint session between Egypt and Cyprus. The Egyptian President discusses the importance of coordinating and implementing efforts to overcome the disastrous effects of climate change.

President Al-Sisi uses explicit positive appraisal, for example:

على الطريق الصحيح

The adjective الصحيح indicates explicit positive appraisal and implies that all countries must follow the correct track if they really want to overcome the effects of climate change.

Al-Sisi uses many words that implicitly express positive appraisal, such as:

الترقيم الدولي الموحد للنسخة المطبوعة (1110-2128)

الترقيم الدولي الموحد للنسخة الإلكترونية (2735-4652)

-تعزيز عمل المناخ Enhance efforts of combating climate change

-التغلب على آثاره Overcome its effects

-حرائق للغابات وفيضانات و سيول Forest fires, floods

The two gerunds تعزيز and التغلب indicate the fact that countries should work together to combat the negative effects of climate change. In addition, "حرائق للغابات وفيضانات و سيول" indicate some of the consequences of climate change on humans.

There are also phrases that manifest negative appraisal, as in:

آثاره السلبية Its negative effects

أحداث مناخية قاسية Severe climate changes

خسائر بشرية و مادية جسيمة grave human and materialistic losses

All these phrases express the different consequences of climate change. Thus, all countries should exert serious efforts to combat it.

There are significant grammatical structures which are used in the analysed speech, such as:

- تنسيق عمل المناخ coordinating efforts to combat climate change

- تعزيز عمل المناخ enhancing efforts to combat climate change

These phrases have the same grammatical structure (gerund+ NP). The gerunds "تنسيق-تعزيز" are followed by PPs. The examples indicate that overcoming climate change depends on real collective coordination and collaboration among all countries of the world, and without this coordination this cannot happen.

Extract (5)

بداية أود أن أرحب بكم جميعا في مصر...إننا نجتمع اليوم للتباحث بشأن إحدى أكثر القضايا العالمية أهمية وإلحاحا، وهي مواجهة تغير المناخ من خلال أعمال الدورة السابعة والعشرين لمؤتمر الأطراف في اتفاقية الأمم المتحدة الأطارية لتغير المناخ COP27 الذي ينعقد في دورته الحالية بمدينة شرم الشيخ مدينة السلام وأولي المدن المصرية التي تعرف طريقها نحو التحول الأخضر..... هل نحن اليوم أقرب الي تحقيق أهدافنا من عام مضي؟ هل استطعنا خلال عام منصرم أن نتحمل مسئوليتنا كقادة للعالم في التعامل مع أخطر قضايا القرن و أشدها تأثيرا؟!... إنه ليس مستحيلا إذا توافرت الإرادة الحقيقية والنية الصادقة لتعزيز العمل المناخي المشترك وترجمة ما يصدر عن اجتماعنا من نتائج إلى واقع ملموس...إن ما يحتاجه عالمنا اليوم

لتجاوز أزمة المناخ... يتجاوز مجرد الشعارات والكلمات. إن ما تنتظره منا شعوبنا اليوم هو التنفيذ السريع والفعال والعاقل. وتتوقع شعوبنا خطوات حقيقية ولمموسة نحو خفض الانبعاثات وبناء القدرة على التكيف مع تبعات تغير المناخ وتوفير التمويل اللازم للدول النامية...نحن نتمسك بالأمل في قدرة البشرية علي صنع مستقبل أفضل لأجيال قادمة...ولقد وضعنا في مصر نصب أعيننا أهدافا طموحة لمواجهة تغير المناخ فنحن نعمل بدأب على الإسراع من وتيرة التحول الأخضر... وإحداث تحول هيكلي في القوانين والتشريعات وآليات العمل الحكومية بما يساهم في تعزيز الاستثمارات الخضراء... إن ما تشهده مصر اليوم من تحول نحو الاقتصاد الأخضر منخفض الانبعاثات في كافة المجالات هو ترجمة عملية لما نادينا به..من الضروري أن تشعر كافة الأطراف من الدول النامية في قاراتنا الأفريقية أنها تتحمل مسؤوليتها بقدر امكانياتها في مواجهة تغير المناخ....

(Al-Sisi, 2022a)

First, I would like to welcome you in Egypt...We meet today to discuss one of the most important and urgent issues, which is overcoming climate change in the proceedings of COP27 currently held in Sharm El-Sheikh, the first Egyptian city that is on the track to green transformation ...Are we closer today to achieving our aims from last year? Were we able in the last year to bear our responsibilities as leaders of the world to deal with the most dangerous and most effective issues in the century?...It is not impossible if real will and true intention are available to enhance common efforts to combat climate change and implement what we decide upon in our meeting to a tangible reality... What our world needs today to overcome the climate change crisis ...is more than just mottos and words. What our peoples need is the quick, effective and just implementation. Our peoples expect real and tangible steps towards decreasing emissions and acquiring the ability to adapt with the consequences of climate change and providing the necessary financial support for developing countries...We hold on to the hope that the human ability is able to create a better future for the next generations...In Egypt, we have ambitious hopes to overcome climate change. We work hard to accelerate green transformation...and make changes in the laws, legislations, and mechanisms of governmental work to enhance green investments...What Egypt is witnessing today concerning transformation towards low-emission green economy in all fields is an implementation of what we advocated for ...It is necessary that all the parties in developing countries in our African continent should feel that they carry their responsibilities to combat climate change...

The extract is taken form President Abdel Fattah Al-Sisi's speech delivered in the opening session of COP27. He states that the aim of COP27 is to end the suffering of humans because of the climate change crisis. He clarifies Egypt's efforts to overcome this problem.

There are words that express explicit positive appraisal, such as:

صنع مستقبل أفضل لأجيال قادمة Establishing a better future for the coming generations

The comparative adjective “أفضل” is used to indicate that the main aim of overcoming climate change is to have a better physical environment for the next generations.

The President uses words that express implicit positive appraisal, for example:

Reducing emissions خفض الانبعاثات

Providing necessary financial support توفير التمويل اللازم

The two words “خفض” and “توفير” indicate the efforts exerted by the Egyptian government to overcome the crisis of climate change which includes reducing harmful emissions and providing financial support to overcome these effects.

There are also phrases that indicate implicit positive appraisal, for example:

quick, effective and just implementation التنفيذ السريع و الفعال و العادل

real will and true intention to enhance work الإرادة الحقيقية و النية الصادقة لتعزيز العمل

The NPs “التنفيذ السريع”, “الإرادة الحقيقية”, and “النية الصادقة” all manifest how the Egyptian government tries to overcome climate change. The three adjectives, in the first example, “السريع”, “الفعال”, and “العادل” are coordinated together using “و” to form a positive appraisal pattern to further support this. In addition, the two NPs, in the second example, “الإرادة الحقيقية” and “النية الصادقة” are coordinated using “و” to form a positive appraisal pattern that expresses the efforts done.

There are phrases which are used to express implicit negative appraisal, for example:

Climate crisis كوارث مناخية

Materialistic losses خسائر مادية

Human suffering للمعاناة الإنسانية

All these phrases indicate some of the consequences that humans may suffer from because of the climate change crisis if no serious efforts are taken to solve this problem.

Al-Sisi uses the grammatical structure (gerund+ NP) repetitively, such as:

Facing climate change مواجهة تغير المناخ

Overcoming climate change تجاوز تغير المناخ

The gerunds “مواجهة- تجاوز” are followed by PPs. This structure helps to indicate that governments of the whole world must face and combat the consequences of climate change so as not to be affected by them.

Metaphors are used in the speech, such as:

التحول الأخضر Green transformation

الاقتصاد الأخضر منخفض الانبعاثات Low-emissions green economy

الاستثمارات الخضراء Green investments

The metaphors show that countries are now starting to focus on changes that do not harm the environment. In the metaphors the adjective “الأخضر” and “الخضراء” are used to show that everything done must be environmental friendly. The metaphor التحول الأخضر indicates that innovations and transformations must be done to save the environment. Also, الاقتصاد الأخضر shows that economic growth must be environmental friendly and not based on activities that harm the environment. Moreover, الاستثمارات الخضراء clarifies that investments should adopt techniques that do not harm the environment.

Rhetorical questions are used in the speech under investigation, such as:

هل نحن اليوم أقرب إلى تحقيق أهدافنا من عام مضى؟ هل استطعنا خلال عام منصرم أن نتحمل مسؤوليتنا كقادة للعالم في التعامل مع أخطر قضايا القرن و أشدها تأثيرا؟

Are we closer today to achieving our aims from last year? Were we able in the last year to bear our responsibilities as leaders of the world to deal with the most dangerous and most effective issues in the century?

Rhetorical questions are used by the President to show that what has been done to combat climate change is not enough and more needs to be done. Thus, these questions are used to blame the attendees politely and to warn them that they need to exert more effort in this respect.

Extract (6)

تسببت درجات الحرارة المرتفعة وندرة المياه في الأردن في الضغط الشديد على مواردنا المحدودة... اللاجئين حول العالم والدول المستضيفة هم الأكثر عرضة لآثار التغير المناخي... دعوني أذكر اثنين من أهم العوامل المطلوبة للنجاح. أولاً، تحقيق التكامل الوثيق بين إجراءات التعامل مع التغير المناخي والتنمية الاقتصادية... التنمية الاقتصادية المستدامة في

القرن الحادي والعشرين تتطلب موارد وممارسات خضراء... نحن نعمل على الاستثمار في مواردنا الوفيرة من الطاقة الشمسية وطاقة الرياح... ونعمل على تشجيع الشراكات الاقتصادية الخضراء لتوفير فرص العمل... وهذا يقودني إلى العامل الثاني لنجاح إجراءات التعامل مع التغير المناخي وهو التعاون الوثيق علي المستويين الإقليمي والدولي... إن الأردن بسجله الحافل بالمشاريع الناجحة في مجال الاستجابة لآثار التغير المناخي حريص علي أن يكون مركزا إقليميا للتنمية الخضراء...إننا نعمل مع الإمارات في مشروع لزيادة موارد الطاقة والمياه النظيفة ، ويجري العمل على مشروع مبتكر آخر...سنساعد من خلاله على إيجاد حلول لآثار التغير المناخي على المحيطات

(Al-Hussein, 2022)

High temperature and scarcity of water in Jordan have caused extreme pressure on our limited resources...Refugees round the world and the hosting countries are the ones who mostly suffer from climate change...Allow me to mention two of the most important factors required for success. The first is establishing a close integration between dealing with climate change and economic development...Sustainable economic development in the 21st century requires green actions and green resources...We invest our abundant resources of solar energy and wind energy...We encourage green economic partnerships to provide job opportunities...This leads me to the second factor for the success of the procedures dealing with climate change which is the close cooperation on the regional and international levels... Jordan with its record, which is full of successful projects in the field of dealing with climate change, is keen on being a regional centre of green development...We are working with the Emirates on a project to increase energy resources and clean water. We are working on another creative project through... which we will find solutions to the effects of climate change on oceans.

This extract is taken from the speech of King Abdalla Al-Hussein of Jordan during the opening session of COP27. In his speech, he clarifies ben some of the consequences of climate change, and he indicates some of the procedures that should be adopted to overcome these consequences.

In the extract, there are phrases that express implicit positive appraisal, such as:

التعاون الوثيق علي المستويين الإقليمي والدولي Close cooperation on the regional and international levels

مواردنا الوفيرة من الطاقة الشمسية Our abundant solar energy resources

The phrase “التعاون الوثيق” indicates the necessity of the close cooperation among countries to combat climate change. Also, “مواردنا الوفيرة” indicates some of the efforts exerted by the Jordanian government to overcome climate change which depends on clean renewable sources of energy, such as the solar energy. He describes solar energy as abundant to show that they can generate energy from the sun without polluting the environment and without

any costs. It also implies that this source of energy will always be available and will never end.

There are also phrases that express implicit negative appraisal, for instance:

درجات الحرارة المرتفعة High temperature

ندرة المياه Scarcity of water

The three NPs clarify some of the negative effects of climate change. This is a warning from the speaker that unless safe measures are taken to overcome this problem, the consequences will be grave for all human beings.

Metaphors related to saving the environment are used, for example:

ممارسات خضراء Green actions

الشراكات الاقتصادية الخضراء Green economic cooperations

In these metaphors the adjective “خضراء” is used. In the first metaphor, King Abdalla indicates that all activities related to using natural resources must be environmental friendly so as not to harm the environment. In the second metaphor, he clarifies that the government seeks economic collaboration with other countries but they must abide by strict environment safety measures.

King Abdall uses the grammatical structure (gerund + PP), as in:

التعامل مع التغير المناخي Dealing with climate change

الاستجابة لآثار التغير Responding to the effects of climate change

إيجاد حلول لآثار التغير المناخي Finding solutions to the effects of climate change

The gerunds “التعامل-الاستجابة-إيجاد” are followed by PPs. The structure in question is used repetitively in the examples to stress the importance of facing climate change.

Results and Discussion

It has been shown in the study that certain appraisal patterns are used in the analyzed English and Arabic speeches. The following table clarifies the frequency of using different appraisal patterns in the analysed data:

Table (10): Frequency of using appraisal patterns in the analyzed data

Appraisal Pattern	English speeches	Arabic Speeches
Implicit positive appraisal	120 (51.5%)	95 (49%)
Implicit negative appraisal	50 (21.4%)	38 (19.5%)
Explicit positive appraisal	14 (6%)	10 (5.2%)
Explicit negative appraisal	---	---
Metaphors	10 (4.3%)	15 (7.7%)
Prefixed words	12 (5.2%)	---
Significant grammatical structures indicating positive appraisal	14 (6%)	18 (9.3%)
Significant grammatical structures indicating negative appraisal	12 (5.2%)	14 (7.3%)
Rhetorical questions	1 (0.4%)	4 (2%)
Total	233 (100%)	194 (100%)

Table (1) shows that appraisal patterns are used in the English texts more than the Arabic ones (233 vs. 194). Also, implicit appraisal, whether positive or negative, is the most commonly used appraisal pattern in the English and Arabic data, followed by significant grammatical structures, whether positive or negative, explicit appraisal patterns, whether positive or negative, prefixed words, metaphors, and finally rhetorical questions. Implicit appraisal, whether positive or negative, is used more in English texts than the Arabic ones. In the English data, implicit positive appraisal is used 120 times (51.5%), and implicit negative appraisal is used 50 times (21.4%). However, in the Arabic data, implicit positive appraisal is used 95 times (49%), and implicit negative appraisal is used 38 times (19.5%). Implicit positive and negative appraisal, in the English and Arabic data is used extensively because speakers do not say bluntly what is right and what is wrong so as not to be too instructive to listeners. Instead, speakers talk about the negative consequences of climate change and the various efforts their governments exert to overcome this crisis to convince the public of the seriousness of this problem. Furthermore, speakers talk extensively about the efforts to avert climate change indirectly to show that these efforts are done without exaggeration because this is one of the duties of the government. In this way, the speakers can gain the support of the public to avoid any possible criticisms.

Explicit appraisal is used less than implicit appraisal. Explicit appraisal referring to positive qualities is used in the English speeches slightly more than in the Arabic ones (14 vs.10, 6%

vs. 5.2%). This can be because head of governments do not tell the public bluntly what they are doing to protect the environment as they know that there are always criticisms from the public. Explicit negative appraisal is not used at all in the English and Arabic speeches. This can be because the public do not like to be told bluntly what is right and what is wrong. Thus, heads of states and officials do not use this pattern as not to sound offensive and to gain the support of the public.

Metaphors are used in the Arabic speeches 15 times (7.7%) which is slightly more than the English ones (10 times, 4.3%). All the metaphors used refer to the protection of the environment. It can be noticed that the words “أخضر، خضراء، green” are used in the metaphors. This can be because all metaphors refer to environmental friendly activities and projects and their financing system.

Prefixed words are used only in the English data (12 times, 5.2%) and they all refer to negative appraisal as they indicate some of the negative consequences of climate change such as “displaced”.

Regarding significant grammatical structures indicating positive appraisal, they are used in the Arabic speeches more than in the English ones (18 times vs.14 times, 9.3% vs. 6%). This may be because Arab leaders want to urge other countries of the world to go ahead and proceed with projects and plans to overcome the climate change crisis. As for grammatical structures indicating negative appraisal, they are used in the English speeches more than in the Arabic ones (12 times vs.14 times, 5.2% vs.7.3%). This may be because Western leaders want to indicate the graveness of the climate change problem and its destructive effects on all countries of the world.

The researcher has noticed that using rhetorical questions is another linguistic device that can be added to Stibbe’s (2015a) appraisal patterns model. These are used in the Arabic speeches 4 times (2%) and only once (0.4%) in the English data. They are used to draw the attention of the listeners and the public that what has been done so far to overcome the consequences of the climate change problem is not enough and that more needs to be done in this respect.

Conclusion

The study shows that using rhetorical questions is another linguistic device that can be added to the appraisal patterns suggested by Stibbe (2015a). These rhetorical questions are important because they have a strong effect on the listeners because by using these questions speakers can make listeners agree with what they say. In fact, rhetorical questions are a strong motivating linguistic device.

The study also reveals that the appraisal patterns used in the selected English speeches are more than the Arabic ones (233 vs. 194). In addition, implicit appraisal patterns are the most commonly used patterns in the analysed English and Arabic speeches. Also, in both kinds of speeches, implicit positive appraisal patterns are used more than implicit negative appraisal ones. In the English speeches, implicit positive appraisal is used 120 times (51.5%), and in the Arabic speeches, it is used 95 times (49%). Moreover, implicit negative appraisal is used

in the English data 50 times (51.5%), and in the Arabic data, it is used 38 times (19.5%). The second most commonly used pattern is significant grammatical structures indicating, whether positive or negative appraisal, which is used in the Arabic speeches slightly more than the English ones. Significant grammatical structures indicating positive appraisal is used in the Arabic data 18 times (9.3%) and in the English data it is used 14 times (6%). In addition, significant grammatical structures indicating negative appraisal is used in the Arabic data 14 times (7.3%) and in the English data it is used 12 times (5.2%). Explicit appraisal is the third most commonly used pattern in both the English and Arabic data. It is used in the English data more than the Arabic one. Explicit positive appraisal is used 14 times (6%), and in the Arabic speeches, it is used 10 times (5.2%). Explicit negative appraisal is used at all neither in the English speeches nor in the Arabic ones. The fourth most commonly used pattern is prefixed words which are used only in the English speeches under investigation 12 times (5.2%). The fifth most commonly used pattern is metaphors. These are used in the Arabic speeches more than the English ones (15 vs. 10 times, 7.7% vs. 4.3%). The least used appraisal pattern is rhetorical questions which are used in the Arabic data 4 times (2%) and in the English data, they are used only once.

The study proves that ecolinguistics combines ecology and language. The former deals with the relation that ties humans to their physical environment. The latter is important as it is the medium that humans use to address the various problems they face in their environment as well as problems that other organisms face in the same physical environment.

One of these ecological problems is climate change that causes serious problems to the whole human race, such as floods, droughts, diseases, forest fires and desertification. Hence, the analysis of the speeches delivered by heads of states and officials in COP27 can help in clarifying their ideologies regarding climate change. In addition, the analysis can be used to further evaluate the extent of success of the actions taken by governments of different countries regarding this problem to show whether these actions are good enough or further actions need to be taken.

Strong actions must be taken regarding climate change as poor developing countries are the ones which suffer the most in spite of the fact that the problem of climate change is caused by developed countries. It has been found that billions of people live in countries that suffer most from climate change hazards. In fact, all human beings and organisms deserve to live in a healthy and a safe environment. Hence, climate change needs to be dealt with seriously.

Further research can use appraisal patterns to study other issues as epidemic diseases and their various effects. These patterns can also be used to investigate some international economic problems, such as currency floatation, political issues, such as the war on terror fought in Iraq and the Russian-Ukrainian conflict as well as other issues of general interest.

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