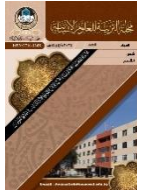




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Voices of Nature: Cognitive Insights into the Representation of Nature in Selected TEDx Talks

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Abstract

The natural world is a huge and intricate web of life that provides a multitude of insights and lessons to those who observe and contemplate it. As a platform for sharing innovative ideas and knowledge, TEDx has become a key focus for understanding how public discourse affects people's awareness and perception of various topics. Schema theory and conceptual metaphor theory provide cognitive insights that influence how speakers and their audience think and understand concepts connected to nature in the context of nature representation. Employing a descriptive qualitative method, the current study examines three inspirational talks delivered by TEDx American speakers in an attempt to honor the natural world. Based on the findings, numerous schemas have been activated through the cognitive mapping between a source domain and a target domain. The activation of such metaphor-based schemas has broadened the meaning and comprehension of the talk's main concerns. In each of the three talks, the three most often used conceptual metaphors (together with the schemas that accompany them) were 'nature is a model', 'nature is everywhere', and 'nature is a legal entity with rights'. This research encourages a more more deliberate and accountable approach to environmental management by highlighting the potential of talks as platforms for public discussion of ecological issues

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مجلة علمية فصلية محكمة، تصدر عن كلية التربية للعلوم الإنسانية / جامعة الموصل



أصوات الطبيعة: رؤى إدراكية في تجسيد الطبيعة في محادثات مختارة لمنصة تدكس

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الملخص

معلومات الارشفة

إن العالم الطبيعي هو شبكة ضخمة ومعقدة من الحياة، توفر عددًا هائلًا من الرؤى والدروس لأولئك الذين يراقبونه ويتأملونه. باعتبارها منصة لمشاركة الأفكار المبتكرة والمعرفة أصبحت تدكس محورًا أساسيًا لفهم تأثير الخطاب العام على وعي وإدراك الناس لموضوعات متنوعة. توفر نظرية المخططات (Conceptual Schema Theory) ونظرية الاستعارة المفهومية (Metaphor)

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الكلمات المفتاحية :

رؤى إدراكية تؤثر في طريقة تفكير المتحدثين والجمهور، وفهمهم للمفاهيم المرتبطة بالطبيعة في سياق تمثيلها. من خلال استخدام منهج وصفي نوعي، تتناول هذه الدراسة ثلاث محادثات ملهمة ألقاها متحدثون أمريكيون في فعاليات تدكس في محاولة لتجسيد العالم الطبيعي. أظهرت النتائج انه تم تفعيل العديد من المخططات الإدراكية من خلال الربط الإدراكي بين مجال مصدر ومجال هدف. وقد وسّعت تفعيل هذه المخططات القائمة على الاستعارات من معنى المحادثات وعمقت فهم القضايا الأساسية التي تناولتها. في كل من هذه المحادثات الثلاث، كانت الاستعارات المفهومية الأكثر استخدامًا، الى جانب المخططات المصاحبة لها، هي: الطبيعة كنموذج، والطبيعة موجودة في كل مكان، والطبيعة ككيان قانوني له حقوق. يشجع هذا البحث على تبني نهج أكثر وعيًا ومسؤولية في ادارة البيئة، من خلال تسليط الضوء على الامكانيات التي توفرها المحادثات العامة كمنصات للنقاش المجتمعي حول القضايا البيئية.

رؤى إدراكية، الطبيعة، محادثات تدكس، المخطط الإدراكي، الاستعارة المفهومية

معلومات الاتصال

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1. Introduction

Public discourse's portrayal of nature has a big impact on how society views and engages with the environment. TEDx forum, which has gained popularity all over the world, provides a wealth of resources for studying the cognitive framing and communication of nature. The present study looks at three talks that were given on this platform in an effort to foster a better relationship with the environment and support sustainable practices. Although TEDx talks are famous for their captivating and approachable communication style, little is known about the linguistic and cognitive processes that underpin how speakers construct their narratives, particularly those that deal with nature and the natural world. By offering a thorough examination of the cognitive insights used in these presentations, this study aims to close this gap and provide fresh perspectives on the relationship between language, cognition, and environmental consciousness. The main questions that the study tries to address are

1. How has nature been depicted in the three selected talks?
2. What recurrent schemas and conceptual metaphors have been used in the three selected talks?
3. How do the two cognitive insights of schema and metaphor work together to portray nature?

The study hypothesizes that within TEDx talks, speakers conceptualize nature as a source of inspiration that has the potential to guide human creativity, wisdom and innovation. The schema of 'motherhood' and the metaphor 'nature is mother' are the most spreading types among other schemas and metaphors. A third hypothesis is that those schemas that are metaphorically based are more engaging and impressive than other general ones. The aim of the current study is to investigate the cognitive techniques of schema and metaphors that TEDx presenters employ to depict the natural world. The study is hoped to be a step forward to advance people's knowledge of the way speakers portray nature and what messages they involve within their talks.

2. Theoretical Background

2.1 Voices of Nature

Nature plays a significant role in our lives since it explains our natural self. In essence, everything that arises naturally might be referred to as 'nature' including all living things like plants, animals, water, air, and sunlight. Rivers, forests, and mountains are also among its other attractions. Because it gives us the resources we need to survive, the natural environment is significant (Callicott and Roger,1989). Various theories have been developed to describe how humans and nature interact. Some people (like Aristotle) thought that nature was made for humans and that humans

were the pinnacle of nature. Other scholars (like Muir) disagreed, stating that if God had created nature to benefit humans, there wouldn't be any poisonous plants or animals like mosquitoes. Other theorists (like Leopold) examined the values of nature and contended that there is an ethical relationship between humans and nature. People regard themselves as members of the land community rather than as land conquerors. This latter perspective claims that fostering better ties between humans and the natural world is essential for promoting health and resolving present ecological challenges (Gruen et al. 2012). It explains the issue of interconnectedness and how listening to nature and becoming more connected to it are urgently needed. Gruenewald (2003: 624) maintained that “a theory of place that is concerned with the quality of human world relationships must first acknowledge that places themselves have something to say”. In other words, people must learn to listen and perceive nature in various ways.

Voices of nature are referenced in this concept of listening to it. A variety of natural signals, such as the rustle of leaves, the sound of rivers, the barking of baboons, and the singing of birds, can be taken literally as this voice (Mathevon, 2023). However, other more significant culturally foregrounded messages that imply that nature itself has agency and the ability to communicate, albeit nonverbally, are thought to be more worthy of our attention than this orientation. This interpretation is consistent with viewpoints in environmental ethics, which hold that nature is a moral being that deserves respect and consideration (Plumwood, 2002). As manifestations of the spirits in the world, animals, birds, rocks, and trees are actually co-present and co-participant with humans. People need to understand nature's essence and value its advantages. They must support its needs and interests and be related to it. They must raise their voices in support of nature and the natural world (Blenkinsop and Piersol, 2013). In this regard, speeches for nature, which are presented on a variety of platforms, including TEDx, are a promising means of elevating the voice of nature so that everyone may hear it. Consequently, this research advances the interpretation of works that seek to give nature a 'voice'.

2.2 TEDx Talks

TED is a non-profit, non-partisan, and non-commercial organization that is devoted to the dissemination of 'Ideas Worth Spreading' through short talks of approximately 20 minutes. In 1984, TED got its start as a conference that combined Technology, Entertainment, and Design, hence the acronym TED. The 'x' indicates that even though these events are independently organized, they adhere to TED's guidelines to guarantee consistency and quality (Aljohani,2019). Today, TEDx Talks cover a wide

range of subjects and domains spanning more than 100 languages and covering topics such as global affairs, personal growth, science, technology, the arts, business, society, nature and many others (Sailun and Idayani, 2018). By uniting disparate ideas that are worthy of being shared, TEDx speakers want to spark change. Their talks have been made available to the public and on the TED website since 2006. Those speakers are said to have a significant impact on their audience since they must focus all their efforts on igniting the audience's passion. They can be viewed as sense-makers whose job is to entice listeners into new emotional and interpretive aspects. The success of a talk is mostly dependent on their capacity to create meaning and alter the emotional states of others (Anderson, 2016).

By promoting a fundamental shift in how people and cultures connect to the natural world, TEDx is a useful platform for advancing the conversation around environmental conservation. TEDx forums provide tangible means for individuals and groups to participate in preserving and improving their environment (Presley, 2023). It is important to stress the need for continued commitment to TEDx and other venues that disseminate innovative concepts linked to nature and environmental management. The urgency of environmental challenges demands ongoing discussion and the development of innovative solutions to inspire proactive environmental actions because language is a powerful tool that influences auditors' interpretations of environmental stories and may foster a closer connection with ecological conservation efforts (Nisa et al, 2023).

2.3 Cognitive Insights of Schema and Conceptual Metaphor

Cognitive insights refer to the cognitive frameworks that elucidate how individuals form mental images or mental models of different entities in their minds. These insights serve as frameworks for reasoning and interpreting the world from personal standpoints (Tenbrink, 2020). In this regard, schema and conceptual metaphor play crucial roles in constructing mental frameworks necessary for comprehension and effective communication. The current study employs these two cognitive tools to analyze the selected data.

A schema "is a structured cluster of concepts; usually, it involves generic knowledge and may be used to represent events, sequences of events, precepts, situations, relations, and even objects" (Eysenck and Keane 1990: 275). Most people, for example, have a schema for RESTAURANT that, when mentioned, triggers expressions or sub-schemas such as waiters, customers, tables, menus, food, and so on. The instances (the related sub-schemas) elaborate the schema in a unique way. The

schemas that emerge from repeated activation of the general patterns are used to coin and comprehend novel expressions. These novel expressions become entrenched, i.e. firmly established, in the lexicon through repeated use (Culpeper, 2014). Schemas are mental models or patterns that guide our perception, attention, memory and behavior. They enable us to process vast amounts of information quickly and efficiently by acting as mental shortcuts, allowing us to make sense of the world around us (SPP, 2024).

Metaphor, from the point of view of conceptual metaphor theory, is understood as a cross-domain mapping of one conceptual structure (source domain) onto another conceptual structure (target domain) (Lakoff and Johnson, 1993). That is, it shapes and structures our thoughts and actions through a mapping process. The metaphorical nature of our conceptual system lies in structuring and understanding abstract concepts through more concrete and tangible concepts (Garello, 2024). To see how concepts are metaphorically structured, one can illustrate the conceptual metaphor ‘*discussions are wars*’, which is reflected in our everyday language in a variety of linguistic expressions such as:

- (1) Your arguments are indefensible.
- (2) He attacked every weak point of my arguments.
- (3) I demolished his arguments.
- (4) I have never won an argument against him.

Examining these four examples, one can feel that these are not war-related topics. Armed confrontation (war) and verbal discourse (discussion) are two different things. However, the concept of ‘discussion’ is partially organized, interpreted, and executed in terms of ‘war’. Indeed, we can win or lose discussions and when we observe others debating against an opponent, we attack their positions and defend our own. We also plan discussions and employ strategies, and when we believe a position to be untenable, we change courses and adopt a different line of attack or defense. In short, the concept of discussion is metaphorically structured, the activity of discussing is also metaphorically structured and therefore language, our way of talking about discussions is also metaphorically structured. This way of talking about discussion is conventional and we are often unaware that these are metaphorical expressions based on conceptual metaphor (ibid).

Conceptual metaphors combined with schemas can serve as a foundation for linking and relating bits of information in a text representation in a manner that basic semantic associations cannot (Allbritton, 1995). Many cognitive linguists contend that schema and metaphor should be viewed as complementary to one another: “we need to treat

metaphor as an additional, unique mechanism that operates in addition to schemas. Alternatively, we need to expand our notion of schema so that it includes metaphor-based components” (Crawford, 2014:74). By combining these two cognitive insights, researchers can better understand how humans classify events, process information, and make judgments. Metaphor needs to be seen as a distinct and additional mental structure that works in tandem with schemas (ibid). For this reason, the chosen data in the current study is being analyzed utilizing these two tools.

3. Methodology

3.1 Research Design

The current study employs a descriptive qualitative research method to analyze the data and arrive at a more thorough investigation of the main research questions. Qualitative analysis can be used to study and comprehend the meaning that individuals or communities ascribe to a specific social or human issue (Creswell, 2014). After providing the transcription of the chosen talks, the researchers listened to the talks and read the transcripts several times to see what concepts, schemas and metaphors are raised in each one. The main points of concern are the speakers’ focus on particular environmental issues. Since the main goal of the current study is to analyze the talks cognitively with special focus on their schema and conceptual metaphors, the talks’ non- verbal characteristics are outside its scope. It examines how the speakers evoke clear mental pictures of nature, prompting emotional and cognitive involvement.

3.2 Data Selection

Purposive sampling is the technique used in this study to specifically target TEDx talks that discuss the natural world. According to Patton (2015), qualitative researchers favor purposive sampling in order to highlight the in-depth comprehension of certain situations that are rich in information. The number of issues that may be inferred from the samples that are highly relevant to the study goal should be the basis for understanding purposeful sampling. As a result, three videos by three American women were chosen from the TEDx platform based on their duration (about 15 to 20 minutes), thematic focus (nature-related), production years (2000s), and transcription availability. These three TEDx presenters were chosen because they are environmental activists who advocate for the preservation and protection of the environment. The analysis is arranged chronologically, beginning with the 2005 talk by Janine Benyus (Talk No. 1), followed by the 2016 talk by Emma Marris (Talk No.2) , and the 2019

presentation by Kat Houghton (Talk No. 3). The reference section includes links to the videos.

3.3 Ethical Considerations

The three selected videos, along with their transcriptions, are made publicly accessible on the TEDx platform for global viewing. No personal or confidential information was examined. The texts are cited at every stage of the research. By being transparent about these ethical issues, the current study upholds integrity in the analysis of public speech and promotes courteous engagement with speakers' content.

4. Data Analysis

The current study adopts the view that metaphors operate alongside schemas as unique mechanisms. The metaphor triggers the schema by mapping one domain (source) onto another (target) allowing us to organize and understand abstract or unfamiliar ideas (Crawford, 2014). Accordingly, the two structures in each talk are examined together then the researchers check what schemas, and conceptual metaphors have been aroused in each talk and what recurrent structures have appeared in the three investigated talks.

4.1 Analysis of Talk No. (1)

In 2005, American author of natural science Janine Benyus presented a talk titled 'Biomimicry's Surprising Lessons from Nature's Engineers'. Benyus made an effort to explain the notion of biomimicry, including how to apply it and set it apart from other concepts. To improve people's comprehension of the process and its advantages, the speaker activated a number of schemas, some generic and others metaphorically based.

The title of the talk has the potential to activate two schemas. The first is the **BIOMIMICRY** schema, followed by the **NATURE AS ENGINEER** schema. The idea of 'biomimicry' is clarified, and its appropriate use is established by engaging these two schemas. Benyus stated that *'learning an idea from an organism then applying it'* is what biomimicry is. She described the concept, cited the book she wrote about it, and provided examples to avoid misunderstanding with other terminologies like 'bioprocessing', 'bio-assisted technology' and 'domestication'. The speaker argued that ecosystems, creatures, and natural processes are comparable to human engineers in terms of design and innovations, hence activating the schema of 'nature as engineer' through the conceptual mapping of the more tangible source domain 'engineer' onto the target domain 'nature'. The natural world, with its species like bacteria, plants, and animals, are the best engineers in the world, and humans must

learn from them by copying their lifestyles. In other words, the processes and designs of nature have been compared to human engineering.

Benyus also invoked the schema of **FOREPLAY** and the schema of **TECHNOLOGY**. In order to shift the definition of ‘foreplay’ from sexual activity in the context of biological reproduction to something that encompasses preparatory behaviors in the natural world, where organisms engage in intricate prelude activities like courtship displays or environmental modifications, Benyus used the Western Grebe courtship dance as an example. By bringing up this schema and empathetically discussing it, the speaker gave her argument an amusing and approachable touch that enhances the scientific concept’s appeal. The communicator engaged a fourth important schema by mentioning ‘technology’ and making a noteworthy distinction between artificial and natural technology. Because man-made technologies are ineffective and unsustainable, Benyus argued for a shift in thinking that embraces nature’s technology. Benyus asserts that by adopting design principles and mimicking the tried-and-true designs and principles found in nature, human technology may develop into something that not only satisfies human needs but also promotes ecological well-being on a global scale.

The **NATURE AS TEACHER** schema, in which people are the students and nature is the teacher sharing information and lessons based on nature’s experience, is activated when nature is mapped to a teacher. Simply stated, the conceptual metaphor ‘nature is a teacher’ offers a methodical framework, or schema, for understanding nature as a target domain. After evoking the metaphorical comparison of nature to a teacher, more subschemas can be added, i.e., issues that are related to the teaching-learning process like learning, teaching, lessons and syllabus. These can be found when Benyus maintained that we should ‘learn from organisms’, ‘life has a lot to teach us’, ‘biomimicry’s surprising lessons’ and ‘what’s the syllabus?’ in addition to example No. (4) in table (1) below. These instances provide specific illustrations of the speaker’s belief that nature is an excellent teacher who can teach people many valuable lessons. Benyus tried to show throughout her presentation how human systems could be efficiently and dependably based on natural patterns.

Nature’s qualities as a storehouse of accumulated inspiration and awe that one can draw from, learn from, and imitate has activated the schema of **NATURE AS MODEL**. Since nature is thought to be wise, knowledgeable, and limitless, it is linked to a model (or blueprint) from which human enterprises can get inspiration. The conceptual metaphor ‘nature is a model’ presents nature as a source of creative designs that people may use to address challenging issues. Since the majority of other schemas

are tied to this metaphor-based schema, it serves as the central theme of the entire talk. It presents nature as a model of wisdom from which people can learn sustainable behaviors.

Similarly, when nature is used to address a lot of human problems, the schema of **NATURE AS PROBLEM SOLVER** is activated. This type of mapping aims to clarify how nature offers solutions to human problems. According to Benyus, there are over 30 million templates for solutions that can be used to address the most important problems facing humanity right now, such as environmental degradation and sustainable growth. The speaker proposed modeling the techniques and tactics used by natural systems to address human problems. This source-target relationship's main goal, like that of other metaphors, is to change viewpoints from learning about nature to learning from it.

The **GREEN CHEMISTRY** schema is another influential schema that has been adopted to support the notion that nature provides effective, non-toxic, and sustainable answers for human inventions. Designing products and processes that lessen or eliminate dangerous materials is the main goal of green chemistry. Benyus discussed how industrial chemistry can be replaced with green chemistry using natural solutions as in example (8) of the table below. The speaker intended to emphasize the importance of biomimicry as a process that is consistent with sustainability by bringing up such a schema. Green chemistry solutions are frequently inspired by biomimicry. While it may offer a design concept, green chemistry finds ways to make it sustainable and chemically safe, offering alternatives to numerous detrimental industrial processes. The following table provides a summary of the talk's schemas and conceptual metaphors, highlighting the main points that Benyus discussed. The implication column, which provides the meaning of the idea as it was used in the talk, has been used to elaborate generic schemas. Furthermore, conceptual metaphors have been provided to clarify how they invoke metaphorically based schemas. To shed light on how these cognitive insights have been framed, linguistic realizations from the discussion are provided (only one typical example from the talk will be included in the table, others may be provided within the explanation itself):

Table (1)
Schemas and Conceptual Metaphors in Talk No. (1)

Schema	Implication	Conceptual Metaphor	Linguistic realization
Biomimicry	Process of learning from nature		<i>1. We already do biomimicry... being inspired by nature</i>

Nature as Engineer		Nature is a human engineer	2. <i>we'll come with a design challenge, and we find the champion adapters in the natural world, who might inspire us</i>
Foreplay	behaviors in nature before significant events		3. <i>[it] (the grebe) would stop, and then start and then stop and then start, now that's foreplay</i>
Technology	Technology offers innovative solutions		4. <i>life might teach us technology and design</i>
Nature as Teacher		Nature is a teacher	5. <i>learning something from [it], (the genius of the natural world)</i>
Nature as Model		Nature is a source of innovation	6. <i>it's the conscious emulation of life's genius</i>
Nature as Problem Solver		Nature is a problem-solver	7. <i>there were organisms out there that had already solved the problems</i>
Green chemistry	processes that reduce or eliminate harmful substances		8. <i>green chemistry is replacing our industrial chemistry with nature's recipe book</i>

The speaker of the current talk employed numerous metaphors and activated numerous schemas to encourage designers and innovators to take inspiration from the diverse adaptations and resilience tactics seen in the natural world. Nature is compared to an *engineer* who expertly creates designs and solutions for problems like resource efficiency, adaptation, and survival. Benyus emphasized the moral necessity of comprehending and honoring natural systems, fostering a sense of duty and stewardship among the public through linking nature to a *teacher*. This viewpoint provides a framework in which nature is viewed as a wisdom standard from which humans can learn sustainable practices, rather than just as a resource to be exploited. The anthropocentric viewpoints that typically predominate in conversations on environmental design are dismantled by using nature as *a model*. The conceptual metaphor that likened nature to a *problem-solver* originated from the realization that a large number of human-related environmental problems are caused by human actions that have frequently disrupted natural order. As a result, the move away from merely appreciating nature toward learning from it signifies a fundamental shift in viewpoint that has enormous potential for solving challenging global issues.

In the current talk, nature is presented as a wise model that can impart knowledge, offer designs, and resolve problems. The speaker skillfully explained the fundamentals and possibilities of biomimicry by using mental mapping of metaphor to activate particular schemas. Those metaphorically based schemas make the discussion more interesting, engaging, and conceptually accessible. This helps to both inform and inspire a paradigm shift in how humans and the natural world interact, highlighting the necessity of having a reciprocal conversation with the ecosystems that sustain life on Earth.

4.2 Analysis of Talk No. (2)

Emma Marris, an American environmental writer, delivered her speech in 2016 under the title ‘Nature is everywhere, we just need to learn to see it’. The public was greatly impacted by the speech, which received notoriety on a global scale. Marris has set off various schemas to promote a reconsideration of the way nature is conceived.

When Marris brought up the conventional perspective that integrates nature into wilderness intact, the schema of **NATURE’S WILDERNESS** was triggered. Conventional patterns frequently depict nature as an isolated, pristine, untamed place that is cut off from human impact. Marris criticized the view that wilderness encompasses the real meaning of nature and that nature’s true beauty, and significance come from its wild, untamed and untouched state. She advocated for a broader understanding of nature emphasizing that nature is not confined to remote wildernesses but is present in urban areas and human-altered landscapes as well.

Asserting that ‘*if all of the definitions of nature that involve it being untouched by humanity give us a result where we don’t have any nature, then they’re the wrong definitions*’, Marris encouraged people to shift their perception of the environment and to widen their definition of nature, hence, she triggered the schema of **NATURE’S OMNIPRESENCE** through connecting nature as a target with the idea of omnipresence as a source domain. The conceptualization of nature as an entity that is not restricted to virgin (untouched) wild zones but is instead entwined in urban landscapes, agricultural systems, and even domesticated places is greatly impacted by the activation of this schema through the conceptual metaphor ‘*nature is everywhere*’. The shift from viewing nature as autonomous and untouchable to seeing it as interconnected, dynamic, and touched in the sense that ‘*which is untouched is unloved*’ urges listeners to reevaluate and reframe their understanding of the natural world.

Within the same idea of interconnectedness and omnipresence, Marris tried to dispel the myth that natural areas like parks, forests, and mountains should be viewed as being incompatible with man-made areas like towns, streets, and buildings. She therefore

invoked the **MAN-NATURE INTERACTION** schema. By posing the question, ‘*What counts as nature in a world where everything is influenced by humans?*’ the speaker brought up the strong tie between nature and man. Invoking this kind of schema invites a holistic understanding of nature, supporting a symbiotic relationship rooted in mutual respect and reciprocity.

Marris introduced the **ANTHROPOCENE** schema within the same perspective of how humans interact with nature. She introduced the term by clarifying that ‘*some geologists are suggesting we should give to our current epoch, given how pervasive human influence has been over it*’. In an anthropocentric perspective, human interests are prioritized which usually lead to the exploitation and commercialization of natural resources. Humans must adopt a different viewpoint that promotes social change, respects environmental values, and fosters collaboration if we are to build a more sustainable future. The speaker implicated that if we want to create a more sustainable future, we need to embrace an ecocentric (as opposed to anthropocentric) perspective that encourages social change, upholds environmental values, and encourages collaboration with the natural world.

Although the speaker called for a reciprocal relationship between humans and the environment, she exposed the negative relation between them. By using the conceptual metaphor that links nature to a victim, Marris triggered the schema of **NATURE AS VICTIM**. She accused individuals of ‘*destroying nature, stealing nature from children*’, and ‘*changing the chemistry of the air*’. Moreover, she characterized people as the ones who hurt the victim and cause detrimental destruction. The speaker in this schema underlined the necessity of reestablishing balance between the environment and people. She presented individuals, organizations, or movements as potential saviors who could preserve the environment by stewardship, conservation, and sustainable practices. Marris ended her talk by asserting that nature ‘*is beautiful and deserves to be touched and appreciated*’ not to be hurt and destroyed.

Marris used the generic schema **FORT BUILDING** to support her claim that people should promote a more comprehensive and inclusive knowledge of the environment. Children’s yearning for an integrated life is demonstrated by their urge to ‘*hunker down in one spot and just tinker with it, build a house, build a fort*’. Marris suggested that children’s immersive experiences in nature create a stronger emotional bond with the environment by prompting them to construct forts. This supports the notion that greater environmental knowledge and enjoyment results from active engagement with nature. The activation of such a schema may allude to the necessity of an integrated life network that is fundamentally important and worthy of care and protection.

The idea that nature may teach us important lessons activates **NATURE AS TEACHER** schema which is consistent with the fort building view. The conceptual metaphor '*nature is a teacher*' has mapped 'nature' as a target to 'teacher' as a source. People must '*let children touch nature and learn from it*' to promote creativity and inquiry about their surroundings. In other words, humans learn through play, tactile exploration, and observation, whereas nature teaches through its diversity, resilience, and beauty. Like other activated schemas, the implied message encourages people to strengthen their connection with nature.

Depicting nature as worthy to be touched and appreciated, Marris attempted to subvert conventional perceptions of nature by portraying it as desired, dynamic, and attractive rather than as remote, immobile, or solely functional when she asserted in one of her sentences that 'nature is sexy'. The goal of this metaphor is to appeal to contemporary audiences by making nature seem fascinating and deserving of notice. This metaphor compares nature to something that attracts people due to its lively, thrilling, and possibly even alluring characteristics, hence activating the schema of **NATURE AS SEXY**. The word 'sexy' is frequently used to characterize something that is vibrant, vivacious, and intriguing, and that nature has a magnetic attraction that incites curiosity. In this context, Marris might be implying that nature is alive, ever-changing, and endowed with an alluring raw, uncontrolled energy. By portraying nature as both necessary and alluring, she employed this metaphor to arouse passion and a sense of urgency in embracing it.

Marris personified nature as having a voice and the ability to communicate with humans in the metaphor '*nature is a speaker*' which activates the metaphor-based schema of **NATURE AS SPEAKER**. Example (9) in table (2) elaborates nature's potential to speak. The activated schema invokes the subschemas of 'speaker, listeners, message, and dialogue'. Here, nature is presented as an active speaker who uses a unique style to direct listeners, humans, to the correct path. The phrase 'in a special way' (see the example in the table) reinforces the uniqueness and significance of nature's speech implying that its voice is profound and distinctive. The following table summarizes the schemas and metaphors in Marris' talk:

Table (2)
Schemas and Conceptual Metaphors in Talk No. (2)

Schema	Implication	Conceptual Metaphor	Linguistic realization
Nature's Wilderness	Nature not modified by human activity		<i>1. it's still this little sort of secret wilderness. Every single one of these plants grew from a seed that planted itself there</i>
Omnipresence of nature		Nature is everywhere	<i>2. nature is anywhere where life thrives; anywhere where there are species together</i>
Man-Nature Interaction	Humans are part of nature		<i>3. people are interacting with the environment in a way that's really meaningful</i>
Anthropocene	Human impacts on the environment		<i>4. all of the changes and many others have come to be kind of lumped together under this rubric of the 'Anthropocene'</i>
Nature as victim		Nature is victim	<i>5. we're destroying nature from our children</i>
Fort building	through forts, you become more attached to nature		<i>6. if we have a generation that doesn't know how to build a fort, we'll have a generation that doesn't know how to care about nature'</i>
Nature as teacher		Nature is a teacher	<i>7. no matter where this plant comes from, it is beautiful and we need to learn from it</i>
Nature as sexy		Nature is sexy	<i>8. we've spent too much time watching documentaries where the nature is really sexy</i>
Nature as speaker		Nature is a speaker	<i>9. I understand that there are certain parts of this nature that speak to us in a special way</i>

Marris constructed a narrative that invites the audience to reconceptualize their thoughts on nature. She called into the traditional dichotomy between urban and wild environments, introducing a conceptual metaphor that defines nature as *omnipresent* and inclusive. In her presentation, Marris employed patterns that highlight the omnipresence of nature, even in areas strongly influenced by urbanization. By supervising nature as a dynamic and adaptable entity, it effectively subverts the

concept that natural environments only exist in virgin untouched conditions. This perspective promotes an emerging understanding of biodiversity, where the urban spaces themselves can promote and support ecological interactions. The activated schemas in Talk No. (2), whether general or metaphorically based, imply that the perspectives of reconnection, coexistence, and the demand for a more inclusive appreciation of nature collectively influence the audience's cognitive and affective engagement with environmental issues, promoting a sense of empowerment and responsibility. The metaphor-based schemas of '*teacher, victim, omnipresent, sexy and speaker*' show how Marris used familiar concepts to address more intricate ideas about what nature is. That is, to comprehend the target domain, it is essential to understand the source domain. Nature is portrayed as a dynamic, living entity that exists in various places. The conceptual metaphor 'nature is everywhere', which questions the conventional wisdom of a wild pristine nature, is the central theme of the entire discussion. Through her support for an ecocentric viewpoint, Marris invited the audience to reevaluate and reframe their understanding of the natural world.

4.3 Analysis of Talk No. (3)

Kat Houghton delivered her speech in 2019 under the title 'The Rights of Nature'. She argued that more comprehensive and sustainable environmental governance should be encouraged and, hence, nature should be granted some legal rights. This conceptual shift forces society to reevaluate the relationship between humans and nature, putting ecological systems' welfare on par with human rights. Houghton's belief in nature's rights presents the conceptual metaphor '*nature has rights*' which conjures the **NATURE'S RIGHTS** schema. This metaphor-based schema portrays nature as a living being with inherent rights in addition to being an entity that has to be preserved. Images of rivers, mountains, and forests have been activated as legal tenders with the right to preservation and provision. With instances like 'Whanganui River obtaining legal recognition', nature has been raised to the status of a living being that may be defended through its association with issues like rights, justice, law, defenders and protection. Houghton endorses a transformative approach to environmental policy by establishing legal rights for nature, emphasizing the moral necessity of acknowledging the agency of nature and fostering connectivity between nature and humans rather than upholding human dominance over natural systems.

Because of human's anthropocentric worldview, which holds that 'humans are better than the rest of the natural world', man believes that he is superior to nature and that nature is a property that is always at his service. The speaker's mind was

stimulated by this idea of superiority to reveal the man-nature relationship. By conceptually mapping nature to victim, the speaker's allusion to the harm that people have inflicted on the natural world recalled the schema of **NATURE AS VICTIM**. In Houghton's talk, the conceptual metaphor '*nature is victim*' has been widely observed. Human destruction has affected innumerable individuals and spread to numerous places. The speaker claimed that humans are 'the planet's apex predators' and 'the planetary schoolyard bully', meaning that nature is the victim and prey, and humans are the offenders. People must adopt a new perspective on nature and acknowledge it as a sentient entity with rights in order to stop human crimes and damage.

Houghton in her talk used numerous instances to activate various schemas, one of which is the **PROTEST** schema. She mentioned that in order to protest and stop the Dakota access pipeline's development, the demonstrators confronted the armed police forces at Blackwater Bridge. This is shown in example (3) in table (3) below. This generic schema has been activated through the mentioning of different related subschemas like 'protest, militarized police, protectors, bullets, armed with guns, and rubber bullets'. However, by claiming that 'this is not a protest, this is a standoff between two worldviews', the speaker perverted the definition of protest in order to activate another schema, the schema of **TWO WORLTVIEWS**. According to the first perspective, nature is a resource that can be utilized and abused. Hence the schema of **NAURE AS A PROPERTY** has been triggered. This worldview regards nature as a property and maintains that since we are in charge of it, we can exploit it: '*we demonstrate our superiority to nature by controlling and dominating it*'. This schema has mapped 'nature' source to 'property' target, hence constructing the conceptual metaphor '*nature is a property*' to elaborate the idea that nature is a resource that can be exploited by its owners. The alternative viewpoint holds that life is a web of interconnected and interdependent living systems. Nature is seen as interconnected, living, and worthy of reverence. The speaker promotes this latter perspective as the foundation for granting rights to nature by emphasizing the necessity of protecting ecosystems for the survival of all species on Earth, including human existence. By contrasting these two worldviews, Houghton encourages a shift from the mechanical approach to the interconnected view. This idea of interconnectedness has been detailed when Houghton invoked the schema of **INTERCONNECTEDNESS**. She cited several instances that demonstrate the interdependence of nature and humanity, with one's health directly affecting the other. The speaker argued that protecting nature's rights is a way to secure our own future and underlined how humanity suffers when nature is destroyed. This connection is further highlighted by the idea that all entities

are a part of a web of relationships that ‘we want to start looking at how to weave together’. This weaving process represents the inseparable connection between people and the natural environment. Ecological systems and human behavior are closely related, much like threads are woven together to create a fabric.

The speaker’s use of the conceptual metaphor ‘*nature is a community*’ to activate the schema of **NATURE AS COMMUNITY** served to further emphasize this idea of interconnectedness. This metaphor-based schema holds that nature is not merely an external object or resource, but rather an equal and necessary component in the web of life. It implies that humans and nature share a bond and a set of responsibilities, much like members of a community. Houghton employed this metaphor while talking about interconnection, weaving, and community relationships.

The speaker urged humans to change their perspective of their interactions with the environment. Houghton attempted to portray nature as precious and sacred while retaining the viewpoint that regards nature as a living being deserving of rights. She activated the **NATURE AS SACRED** schema by using the metaphor ‘*nature is sacred*’. This schema, together with its conceptual mapping, holds that nature (target domain) is a living being (source domain) that should be revered and considered sacred. This mapping stems from the understanding that nature has inherent dignity. In order to maintain this dignity, nature must be seen as a vital component of existence that deserves consideration and respect, not merely as a source for human use. The schema of sacredness has activated other subschemas like ‘valuable, heaven and holy’. This idea is made clear in the table by Example (8).

Similar to how we view human rights, we can cultivate a sense of duty towards nature by acknowledging its sanctity. The conceptual metaphor ‘*nature is a gift*’ invokes the schema of **NATURE AS GIFT**. Nature’s generosity and humans’ responsibility to the natural environment are the main issues raised by this mapping. Houghton acknowledged that natural resources are priceless gifts from a loving and kind nature. People should reconsider how they relate to nature and that it is morally required that we protect it and show our appreciation for it. This metaphorically oriented schema fosters stewardship, which calls for the need to protect nature by linking a respect for its gifts with a need to preserve it.

By relating nature to a teacher, the speaker triggered the schema of **NATURE AS TEACHER** within the same concept of being valuable and nourishing. This mapping presents nature as a wellspring of knowledge, guidance, and interconnectedness. In the talk, people are portrayed as learners who must learn from nature in order to preserve and protect it. Example (10) in the table explains this concept. The idea that we must

fulfill our responsibilities as humans is an exhortation to apply the lessons that nature has taught us in practical settings. The main idea behind this mapping is that by observing and learning from the processes of nature, humans may acquire the knowledge needed to address ecological problems and build a sustainable future by studying and learning from nature’s processes. The schemas and conceptual metaphors are compiled in Table (3) below, along with one linguistic realization for each.

Table (3)
Schemas and Conceptual Metaphors in Talk No. (3)

Schema	Implication	Conceptual Metaphor	Linguistic realization
Nature’s rights		Nature is a legal entity with rights	<i>1. when I talk to people about rights of nature, most people have never heard it</i>
Nature as victim		Nature is victim	<i>2. we’re the planets apex predator</i>
Protest	protest against any damage that humans do to the environment		<i>3. people were protesting things that threaten the tribe’s water supply</i>
Two worldviews	nature as a resource to be exploited vs. It has some legal rights		<i>4.those two worldviews to consider how we see ourselves in relation to the rest of the natural world</i>
Nature as a property		Nature is a property	<i>5. it is now legal and in fact culturally idealized to own pieces of the natural world we call it property</i>
Interconnectedness	every natural entity is a component of the web of life		<i>6. a tree is a node in a very complex network of relationships</i>
Nature as community		Nature is a community	<i>7. we’re held together by a web of life</i>
Nature as sacred		Nature is sacred	<i>8. life is sacred, and it deserves the right to evolve and to flourish</i>
Nature as gift		Nature is a gift	<i>9. we own pieces of heaven</i>
Nature as teacher		Nature is a teacher	<i>10.we can learn from the fish when they school together</i>

Houghton urged humans to reconsider their moral and legal foundations for environmental management by using the idea of ‘rights of nature’ as a conceptual

metaphor. Her discussion promotes a symbiotic relationship based on reciprocity and respect, encouraging a comprehensive view of nature. The speaker attempted to personify nature as a sentient being with the legal right to live in safety and respect by using conceptual metaphors that represent it as *'victim, community, sacred, gift, and teacher'*. A substantial shift in how society views the relationship between humans and the natural world is encapsulated by the metaphor-based schemas that have been triggered by the conceptual mapping of one target domain to a source domain, which suggest that ecosystems, species, and natural resources deserve rights comparable to those held by individuals and society. By connecting the abstract notion of nature with well-known human experiences and conceptions such as legal entity, victim, community, sacred, gift and teacher, Houghton ensured that her message is understood on both an intellectual and emotional level. Listeners can discover deeper meanings in the talk by tying together schemas and conceptual metaphors, which make difficult or abstract concepts more approachable and relatable. Nature is presented in Houghton's talk as a legal entity that merits certain safeguards and attention. Instead of being viewed as a resource or piece of property to be utilized and abused, it deserves to be treated as a precious and sacred organism. Making this shift in perspective is crucial to creating a fair and sustainable future.

4. Results and Discussion

Examining the talks of three environmental activists from the TEDx platform has demonstrated the efforts these individuals have made to influence and inspire their audience. Benyus (talk 1) reframes nature as a systematic, methodical model. The metaphor *'nature is a model'* stimulates an innovative schema, positioning nature as a source of solutions to human challenges. Marris (talk 2) questions the idea of a pristine wilderness, contending that nature is present in human landscapes, backyards, cities, and various domesticated places. People are active stewards who are part of not apart from nature. Marris' metaphor *'nature is everywhere'*, dismantles conventional dichotomies and promotes an inclusive mindset, inspiring individuals to appreciate and preserve wildlife in all its settings. Nature is framed as an intrinsically legal natural entity in Houghton's presentation (talk 3). Legal systems must take care of ecosystems because, like humans, nature has rights rooted in existence. This talk's primary goal is to shift the perspective from considering nature as interrelated to considering it as a legal subject with agency, responsibilities, and voice. Houghton's metaphor *'nature is a legal entity with rights'* calls for structural adjustments in the way that nature is safeguarded by the law.

By portraying nature as a source of knowledge, creativity, and inspiration, these narratives confirm the study's first hypothesis. The most recurrent metaphor (and its related schema) has been found in the metaphor of '*nature is a teacher*'. This result contradicts the study's second hypothesis when taken literally, yet it supports it in its implied meaning. To put it another way, the sense of love, care, and protection has persisted throughout the three analyzed talks, even though the phrase 'nature is mother' has not been used literally. When it comes to communicating the dynamic and agentive aspects of nature, metaphor-based schemas are proven to be substantially more effective than generic schemas. These metaphors foster the audience's attention, encourage empathy, and advocate for a more inclusive understanding of nature by converting it from a passive resource into an active, interconnected, and morally significant agent. This result confirms the current study's third hypothesis. Collectively, the study shows a distinct cognitive and discursive trajectory from viewing nature as a system to valuing it as an active participant to empowering it as a dynamic, vibrant entity with legal rights.

6. Conclusion

The representation of nature in TEDx talks best exemplifies the complex interactions of language, cognition, and audience perception. Throughout the three examined talks, movement, agency, and engagement define the portrayal of nature. It is not merely a passive recipient of human effort; it is an active force that guides our designs, heals our minds, and reshapes our principles. This dynamic portrayal reflects a broader cognitive shift in environmental thinking from separation and dominance to collaboration and reciprocity. This makes clear the main topics and issues that environmental activists try to discuss in their talks. Their concern is to reflect more profound changes in people's understanding of how humans should interact with the environment. TEDx is a powerful tool for giving nature a 'voice' and increasing awareness of the importance of protecting the natural world. Talks within this platform can be effective means of promoting ecological consciousness. By sharing captivating narratives, innovative solutions, and pressing calls to action, presenters can inspire audiences to take control of nature and speak out for it. The study elaborates how talks and presentations within different platforms can serve as forums for public discussion of environmental issues.

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