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Exploring the Ambivalent Representation of Animals in Kamel Kilani's Children Stories: A Cognitive-Ecolinguistic Approach

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Abstract

Using a cognitive–ecolinguistic approach, the study aims to highlight animals' ambivalent representation in two animal-centered Arabic stories through frame semantics along with frameNet and conceptual metaphor theory. Ecolinguistics links language and the environment to evaluate environment-related texts from a linguistic point of view to promote the principles of ecolinguistics. The study applies the two cognitive tools to two Arabic stories: *the cute rooster and the Valley deer* by Kamel Kilani to show the ambivalent cognitive structures that are deduced based on frameNet-driven results and the metaphorical conceptualization of animals-related concepts in the sample analyzed. The study concludes that conceptual metaphors and frame semantics, represented in frameNet, are truly effective in demonstrating that the stories analyzed call for messages that are partially consistent with the principles of ecolinguistics. Ambivalent structures include animals being helpful and peaceful, nature providing a haven to all living beings, and animals being dangerous predators. Since ecolinguistics does not just call for exposing the destructive discourses but it encourages researchers to resist the destructive discourses and bridge the gap in the ambivalent ones, the study further suggests alternative cognitive structures to replace the ones that do not call for the harmony between all living beings using the same theories. This puts the study under the umbrella of environmental education which promotes raising people's awareness towards achieving a sustainable and equitable society through encouraging respect of all forms of life. Thus, by the end of the analysis, all the cognitive structures that are embedded in the stories become consistent with the ecological philosophy of sustainability and preservation of the environment, of which animals are one element.

الملخص العربى

تهدف الدراسة الى إلقاء الضوء على التمثيل المعرفى الغير متكافئ للحيوانات فى قصص كامل كيلانى فى ضوء الدراسات اللغوية البيئية. يسعى فرع الدراسات اللغوية البيئية، بوصفه فرع جديد ينبثق من الدراسات اللغوية، لاستكشاف العلاقة بين اللغة والبيئة، تحلل الدراسات اللغوية النصوص المتعلقة بالبيئة والطبيعة، متبنية في ذلك نظرة نقدية موضوعية؛ لتعكس المنظور البيئي والمواقف المختلفة تجاه عناصر البيئة التي قد يشير إليها القصاصون في أعمالهم الأدبية. تعتمد الدراسة البيئية المقدمة علي نظرية الأطر والتي قدمها فيلمور (٢٠٠١) ونظرية الاستعارات المفاهيمية والتي قدمها ليكوف وجونسون (١٩٨٧، ٢٠٠٥) لدراسة الأبنية المعرفية الخاصة بتمثيل الحيوان في قصص الأطفال العربية. تتسق أهمية الدراسة و الهدف الأسمى للدراسات اللغوية البيئية، فلا يقتصر دور الدراسات البيئية على استكشاف العلاقة بين اللغة والبيئة، ولكنها تبلور مواطن متعددة يتسني من خلالها العمل على حماية عناصرالطبيعة المختلفة. تعتمد الدراسة على المنهج الكيفي في تحليل النصوص. ويتم توضيح الأطر وأسس التصوير المعرفي من خلال FrameNet والذي يعرض عناصر الإطار المتعلقة بالحيوان معتمدًا في ذلك نحويًا على الفعل، والاسم، والصفة. فعناصر الإطار قد تكون إيجابية أو سلبية مما يعكس الموقف الذي يتبناه الكاتب تجاه الحيوان . وأيضًا يتم اقتراح أبنية معرفية بديلة. تمثل المادة العملية جزءًا من النصوص اللغوية البيئية الموجهة للأطفال، حيث تتضمن المادة العملية قصتين فى اللغة العربية للكاتب كامل كيلاني. بناء على العينة التى تم تحليلها من خلال الأطر المتعلقة بالحيوان ،ومن خلال الاستعارات المفاهيمية، تم استنباط الأبنية المعرفية الغير متكافئة المتعلقة بتمثيل الحيوان والتى تتفق جزئيا وتختلف جزئيا مع مبادئ علم اللغة البيئى. ولتحقيق هدف علم اللغة البيئى، وهو تحقيق التوازن البيئى، تقترح الدراسة أبنية معرفية بديلة تتماشى مع فلسفة الدراسات اللغوية البيئية، وذلك بديلا عن الأبنية المدمرة وذلك باستخدام نفس النظريات. وهذا جزء من إسهام الدراسة فى مجال الدراسات اللغوية البيئية والتعليم البيئى .

الكلمات المفتاحية

أسس التصوير المعرفى- علم اللغة البيئى- نظرية الاستعارات المفاهيمية- الأبنية المعرفية

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1-Introduction

Ecolinguistics studies mainly the connection between language and the environment and how language affects the life-sustaining relationships between living beings and the environment (Stibbe, 2015). This means that balance will never be found unless there is some kind of harmony between all living beings and between living beings and the environment. According to Stibbe (2015), ecolinguists seek to raise people's awareness about the importance of the environmental sustainability through exposing the destructive texts that go against the principles of ecolinguistics and promote the beneficial texts that are consistent with the same principles that call for harmony and environmental preservation. All of this can be achieved through the tools provided by the language. In this study, the cognitive tools that are used are conceptual metaphor theory and frame semantics, as represented in frameNet. Conceptual metaphor theory was pioneered by Lakoff and Johnson (1980). It is a cross-mapping process between two domains that is mostly motivated by bodily experience. Fillmore introduced FrameNet which is a highly valuable cognitive tool that is based on the theory of frame semantics to account for how the meaning of any lexical unit cannot be understood separately from the meanings of other neighboring words. Through frameNet, the lexical unit evokes many frames according to the number of senses it has. Each sense evokes a certain frame, frame elements, and frame to frame relations which give comprehensive information about the lexical unit (Fillmore et al., 2003). This is immensely helpful in showing how animals are represented in the stories. Thus, the present study aims to highlight how animals are cognitively represented in the story by

revealing the cognitive structures, which are the values that are embedded between the lines of the stories, through conceptual metaphor theory and frameNet from the perspective of ecolinguistics.

1.1 Significance of the study

The importance of this study stems from the fact that animals are part and parcel of the ecosystem so the representation of animals through language is highly important. Whether animals are seen as living beings that should be included in the ecosystem or discarded, is discussed in the analysis. The study aligns with the ecosophy of ecolinguistics which calls for sustainability and harmony among all living beings. The study aims to promote the beneficial cognitive structures through bridging the gaps in the ambivalent stories. The significance of the study is ascribed to its contribution to the ecolinguistic studies. The study does not just stop at clarifying the deduced cognitive structures but it goes one step further towards suggesting alternative cognitive structures that are helpful in showing how animals should be lexically and conceptually represented in ways that do not stand in stark contrast to the ecological philosophy.

1.2 Research questions

In an attempt to promote the principles of ecolinguistics, the study aims to answer the following questions:

First, how do FrameNet and Conceptual Metaphor Theory contribute to the ambivalent representation of animals in the Arabic texts?

Second, what are the underlying ambivalent stories (cognitive structures) associated with the representation of animals in the Arabic short stories?

Third, how does the study bridge the gap in the ambivalent cognitive structures?

1.3 Methodology

The study sheds light on the ambivalent representation of animals in two Arabic stories. The unit of the analysis is the text or rather, specifically, the animal-related lexical units that are mentioned in the text. That is why the study employs a qualitative in-depth analysis to explore every angle that animals are represented through. The qualitative analysis is highly useful as the frames, frame elements, frame-to-frame relations are explored thoroughly in the sample analyzed along with the conceptual metaphor instantiations that are associated with animals and are related to the frames. Accordingly, qualitative analysis is more effective than quantitative analysis in conducting such an exploratory study.

1.4 Data collection

The analyzed data represent part of the ecolinguistic discourse directed to children. The study analyzes animal-centered children stories. The

processed data consist of two Arabic stories, which are the *cute rooster* and *the valley deer,* by Kamel Kilani who is considered one of the pioneers of children's literature in the Arab world. The criterion of choosing the stories is based on the author's popularity. If the author is well-known and has many publications, his stories are included in the sample. Thus, Kamel Kilani's children short stories are analyzed as they affect many children, and thus the values embedded in the stories are wide-spread. The Arabic data are compiled from websites specialized in publishing fiction like Hindawi.com. This website provides information about authors and date of online publication.

1.5 Review of literature

Many studies approach the field of ecolinguistics and tackle various environmental texts, but the tools used are different from the ones used in this study. Wang et al., (2019) in the study "Analysis of the UN Secretary-general's Remarks on Climate Change: From the View of Ecolinguistics", use Systemic-Functional linguistics to analyze the United Nation's general-secretary's remarks on climate change, and reveal the ecological ideologies from the perspective of Ecolinguistics to arouse people's ecological consciousness. Systemic-Functional linguistics has three main meta-functions, including experiential function, interpersonal function and textual function. The authors find out that the mental process is the most dominant one in the speech, and then comes the relational process and finally the mental process. Regarding the use of the pronouns, first person comes in the first place followed by second person and third person. Through many examples mentioned in the paper, the authors highlight the fact that the speech focus on the damage caused by global warming towards mankind but no mention is directed to other species. Through the use of the processes, it becomes clear that human behavior is responsible for environmental problems. The use of material processes shows that the speaker appeals to the people to come together and take action. The overdependence on declarative sentences highlights that global warming is a fact and a sizeable threat to all living creatures.

Another study is conducted by Larouz and Mliless (2018) who take an educational approach to ecolinguistics. This study analyzes 14 environmental texts from an ecolinguistic perspective. The study shows that the use of agency, euphemism and passive voice is negative and affects the students' perception of the ecological issues. The study reaches the conclusion that these techniques are used excessively in the texts analyzed which means that responsibility towards environmental destruction is lost, as no one is explicitly mentioned in the text as being responsible, through hiding agency and using the passive voice. The

percentage of Euphemism in the texts ranges from 50 to 52% while agency is used only eight times through all the texts. This results in the students not being aware of the environmental problems or how to preserve the natural habitat since this is not shown as a problem to them in their educational text books. Thus, many studies tackle environmental texts from different perspectives but none has tackled environmental texts while integrating conceptual metaphors and frame semantics.

In addition to the environmental education values offered by stories, they provide a perfect opportunity for the children to acquire more vocabulary and improve their literacy. This is presented in many studies. In the study of "Vocabulary acquisition in young children: The role of the story", it is confirmed, through a number of experiments on children, that they acquire new vocabulary which they would not have acquired otherwise. This highlights the unique role that storytelling plays in children's education (Egan et al., 2010). This notion is shared by many linguists, as Fletcher et al. (2005) also emphasize some of the many advantages that reading stories represent for children which include instilling values in children, environmental or otherwise, and enriching their vocabulary.

Hameed (2021) in her study "An Ecolinguistic Perspective on Framing of Animals in Quranic Discourse" conducts a study that aims at examining how animals are explored linguistically in the Quranic Discourse. Through using the theory of frames, the study concludes that the frames extracted, which are based on the verses that have been explored, lead to beneficial cognitive structures, as animals are framed in four ways: animals as beings, animals as benefactors, animals as ornaments, animals as celestial signs. Throughout the study, these frames are supported by many verses from the Quran. The study highlights the fact that the Quran does not undervalue the significance of other creatures, and encourages humans to respect and appreciate other non-human living beings. The study maintains that in the Quran, animals are shown as beings that are created for different purposes, and this creates the ecological balance of the world.

Stibbe (2001), through many studies, tries to raise people's awareness about the environmental issues, and how they affect people. For instance, Stibbe (2001) conducts a study that describes how language in the animal industry texts contributes to the exploitation of animals. The study applies a critical discourse analysis approach to the analysis of the texts. The study shows that, at the lexical level, people disregard and misuse animals. The lexical units used to represent animals are different from the

ones used with humans. For example, animals are slaughtered but humans are murdered. Also, most of the idioms that are associated with animals demean them. Thus, the author's aim is to raise people's awareness towards animals' suffering, and how to adopt a positive attitude towards nature and not to misuse animals for the sake of profits and to their advantage, as this affects the ecological balance.

The theory of conceptual metaphor is extensively employed in many studies, due to its contribution to the field of cognitive linguistics. Many studies approach the theory from the point of similarities and differences between cultures. Others focus on how conceptual metaphors are used to manipulate people's minds and control their reactions. Some studies also link ecological issues and conceptual metaphors in an attempt to show how conceptual metaphors are used as a linguistic tool to highlight the cognitive models that underlie any piece of writing. However, no other study has linked animal-centered children's stories and both conceptual metaphors and frame semantics to reveal the underlying stories, and suggest alternative stories. The previous paragraphs have presented some of the studies that employ either of the theories in different fields.

2-Theoretical background

This section outlines the structure of the theoretical framework, namely, it presents the framework of ecolinguistics, conceptual metaphor theory and frame semantics. The key terms, along with all the theories-related details, are clarified in the following lines. .

2.1 Ecolinguistics

The relationship between language and the environment is as old as the hills. But this relation has never been explored until the advent of ecolinguistics. Ecolinguistics, as an emerging field of linguistics, aims to link language and the environment through employing linguistic tools to investigate the linguistic features in environment-related texts to promote the life-sustaining principles of ecolinguistics. Ecolinguistics studies "the impact of language on the life-sustaining relationships among human, other organisms and the physical environment" (Alexander & Stibbe, 2014, p.118). Related to the same notion, Garner states "from an ecological perspective, language is not a rule-governed system, but a form of patterned behavior arising from the needs of human sociality: communication, culture, and community" (2005, p.91).

Ecolinguistics was first introduced in 1970 by Einar Haugan. Haugen's definition of a language ecology is "the study of interactions between any given language and its environment"(1972, p.325), in which environment means "the society that uses a language as one of its codes" rather than "referential world". Stibbe (2015), in his book "Ecolinguistics: Language,

Ecology and the Stories We Live", elaborates a number of ecolinguistics-related concepts to make it easier for authors to analyze environmental texts in light of his proposed theories. Stibbe (2015) defines the concept of "stories" as "cognitive structures in the minds of individuals which influence how they perceive the world" (p.8). According to Stibbe (2015), "stories-we-live-by are stories in the minds of multiple individuals across a culture" (p.6). He further elaborates on the concept of "eco" in ecolinguitics by saying that it refers to the connections between humans, other organisms and the physical environment which aim at sustaining life and preserving the environment. Another concept is "linguistics" which means "'the use of techniques of linguistic analysis to reveal the stories-we-live by opening them up to question and challenge from an ecological perspective" (p.9).

According to Stibbe (2015), the goal of ecolinguistics is to reveal the stories that are hidden between the lines of the newspapers and text books through the linguistic tools provided by language. These stories or cognitive structures are judged as being destructive or beneficial based on the principles of ecolinguistics or the ecosophy espoused by ecolinguists. According to Stibbe (2015), the ecosophy is the vision of a better world where humans, animals, plants and the whole environment are taken into consideration. If the stories are consistent with the principles, they are deemed beneficial as they call for the protection of the environment and the wellbeing of all species. Thus, they should be promoted by integrating them in newspapers, texts books, and literary texts and so on. If the stories go against the principles, they are considered destructive and should be resisted and replaced by beneficial ones as they do not call for sustainability and harmony between all creatures. If the stories partly agree and partly disagree with the principles, then this calls for bridging the gap in the ambivalent stories. Thus, all the stories are judged against this ecosophy to determine their category.

2.2 Conceptual Metaphor Theory

Lakoff and Johnson (1980) propose the conceptual metaphor theory to challenge the classical view which maintains that metaphors are merely decorative linguistic devices. Conceptual metaphor theory asserts that conceptual metaphors are employed to understand one abstract concept in terms of another. They are part of people's cognition. People live by metaphors; they use metaphors in their everyday life unconsciously. Kovecses (2010) states that "conceptual metaphors are formed at the level of cognition through the process of mapping one cognitive domain onto another" (p. 142). The two domains are composed of abstract less-

delineated domains that are understood in terms of concrete domains and not the other way around. That is why conceptual metaphors are unidirectional.

Moreover, there is a difference between conceptual metaphors and their linguistic realizations. The conceptual metaphors are realized by the linguistic expressions used by people in everyday life. For example, the conceptual metaphor ARGUMENT IS WAR is realized by linguistic expressions such as "I demolished his argument, he attacked every weak point in the argument, and his claims are indefensible" (Kovecses, 2015, p. 203). Thus, conceptual metaphor theory is based on the idea that language and cognition cannot be separated. Moreover, conceptual metaphor is the lens through which we see the world around us. There is "no real knowing apart from metaphor," (Gibbs, 2008, p.40).

Conceptual metaphors are classified according to conventionality or function. According to conventionality, there is "a scale of conventionality" (Kovecses, 2010, p.35). If the conceptual metaphors are used by people effortlessly or unconsciously, then they are classified as highly conventional. However, if they are uncommon among people and are not used very often, this means that they are unconventional. For example, *love is a collaborative work of art and life is a mirror* are instances of unconventional metaphors. When it comes to function, there are structural, ontological and orientational metaphors. In the structural metaphors, the set of mappings between the source domain and the target domain is clear. "The source domain provides a rich knowledge structure for the target domain" (Kovecses, 2010, p.37). For example, ARGUMENT IS WAR is a structural metaphor. All the elements of war are mapped onto the elements of argument. In ontological metaphors, people perceive of the target domain in terms of objects or substances. In other words, "ontological metaphors enable us to see more sharply delineated structure where there is very little or none" (Kövecses, 2010, p.39). Ontological metaphors provide less knowledge structure for the target domain. Personification is also related to ontological metaphors by assigning human qualities to the abstract concepts (Kovecses, 2010). Orientational metaphors or "coherent metaphors" (Kovecses,2010, p.40) are related to special orientation like up-down, on-off, central peripheral, in-out, and they give an abstract concept a spatial orientation. Orientational metaphors are basic to our everyday life. They are based on our physical interaction with the world. It is easy to identify the orientational metaphors, as they are motivated by people's physical experiences. The following lines present the second cognitive tool used in the analysis, namely frameNet; which is based on frame semantics.

2.3 Frame semantics and FrameNet

The theory of frame semantics is pioneered by Fillmore (1982) to account for how the meanings of words are understood. Based on the theory, any word cannot be understood away from the structure where it is mentioned. The structure is incomplete without the word and the meaning of the word depends on its role in the structure. Fillmore and Baker (2009) state that a semantic frame provides the background information to define the word and justify the way it is used in a certain context. According to Fillmore and Baker (2009), a frame is "any of the many organized packages of knowledge, beliefs, and patterns of practice that shape and allow humans to make sense of their experiences" (p.314).

FrameNet is a lexicographic database that is based on the principles of frame semantics. The premise of FrameNet is that the meaning of any word cannot be separated from its semantic frame which provides the background information necessary to understand the meaning of the lexical unit. Some words have multiple meanings, with each meaning comes a new frame with new frame elements. According to the frameNet database, a lexical unit is a lemma assigned a certain meaning and evokes a certain frame. The frame elements are the participants that are associated with the lexical unit and they can be either core or peripheral which means that they are either an integral part of the frame or can be dispensed with without affecting the meaning or structure of the frame. Also, the relations between the frames are provided. A lexical unit (LU) is a word sense, expressed by the relation between a lemma and the frame that it evokes. The frame elements (FEs) stand for "those entities or properties which may or must be present in any instance of a given frame" (Fillmore & Baker, 2009, p.325).

FrameNet does not stop at highlighting the frames and the frame elements evoked by the lexical unit but it provides a set of frame-to-frame relations and thus makes it easier to show the link between the frames. Thus, the syntactic representation of any frame is complete. The relations connect the frames together along with their frame elements. Fillmore (2006) states that frame-to- frame relations are a prerequisite for the cohesion of any text. Among the relations is "inheritance" which is a relation between two frames one of them is called a parent frame and the other a child frame. All the frame elements (FEs) of the parent frame are related to the elements of the child frame (Fillmore and Baker, 2009). In his book "Ecolinguistics: Language, Ecology and the Stories we Live by", Stibbe (2015) defines the concepts of frames and conceptual metaphors to illustrate how they are closely related to ecolinguistics and

to each other; conceptual metaphors and frames are two cognitive tools that are used in ecolinguistics to reveal the underlying stories and help people adopt beneficial attitudes towards the environment, and come up with alternative stories to the destructive ones. Stibbe (2015) maintains that a frame is a story regarding an area of life that is triggered by particular words, and that framing is the use of a story from a frame to "structure how another area of life is conceptualized" (P. 47). He believes that frames, like discourses, can be critically analyzed according to an ecosophy. Stibbe (2015) encourages researchers to look at the commonly used frames in a text, evaluate them from the perspective of ecolinguistics, highlight the problems associated with these frames, and propose alternative frames that help people keep the life-sustaining relationships in mind. Stibbe (2015) argues that, "metaphors use a frame from a specific, concrete and imaginable area of life to structure how a clearly distinct area of life is conceptualized" (p. 59). Moreover, Stibbe confirms that the source domain is composed of a number of frames. For example, the domain of body includes frames such as waking_up, self_motion, exercise, ingestion, and many more. Thus, Stibbe (2015) aims to formulate "a single framework analyzing both metaphors and framings, and then applies this framework to a range of texts to explore metaphors of relevance to ecolinguistics" (p.63). So, the present study focuses on the influence of the linguistic framing on the conceptualization of the animals' representation, especially on animal-related lexical units such as verbs and adjectives. This study seeks to show how the exposure to linguistic frames shapes the way children view animals conceptually. Conceptual metaphors and frames both lead to the same results either through linguistic or metaphorical framing of concepts. Using these two cognitive tools proves effective when it comes to the analysis of the short stories to determine the category of each story along with its cognitive structures.

3-Data processing and analysis

Processing data starts with the identification of LUs used to represent animals. FrameNet is used to identify frames activated by these units. Each frame is further processed to identify its FEs and detect animal-related FEs, and to trace their related frames so that apparently different frames can be related if they share one or more frames in the higher cognitive hierarchy. Then, conceptual metaphors, influencing the representation of animals, are also explored and the type of metaphor is marked. To relate frame-based analysis to conceptual metaphors, frames of the LUs instantiating the metaphors are also captured and processed, identifying the frames and frame elements. The metaphorical uses of the

frames evoked by the lexical units, which are mentioned in the linguistic expressions, lead to conceptual metaphors in the stories. This step allows linking frames, directly used to represent animals, to those indirectly used to realize conceptual metaphors.

In the next step, the list of frames activated in animal representation, thematic roles played by animals, top frames common among animal representations and conceptual metaphors are examined to conclude the underlying stories or cognitive structures associated with animals. The principles of ecosophy are used to further explore such stories and categorize them as consistent, partially consistent or resistant to ecosophy. Therefore, beneficial, ambivalent and destructive ecolinguistic perspectives are figured out. In this study, the focus is on the ambivalent stories that partially agree with the ecological philosophy. Further qualitative analysis is performed to provide alternative cognitive structures, so that all the cognitive structures become totally in conformity with the principles of ecolinguistics.

4. Results and Discussion

According to ecolinguistics, there are three types of cognitive structures: beneficial, destructive and ambivalent. The representation of animals in each structure is different. The representation of animals in this research paper is realized through the use of the two cognitive tools of frame semantics, along with its tool of frameNet, and conceptual metaphor theory. This paper is concerned only with the ambivalent cognitive structures and the related representations of animals in such stories to resist the cognitive structures that do not agree with the ecological philosophy and to focus on the positive pedagogical values communicated to children through the analyzed stories, and further instill these values in them while they are young. The data is explored in two Arabic stories which are the *cute rooster* and *the valley deer* which are written by Kamel Kilani.

The study employs two cognitive tools which are the theory of frame semantics, represented in FrameNet, and the theory of conceptual metaphor. Lexical units such as adjectives and verbs are highly evocative lexical units, and thus trigger a lot of frames when used in children's stories. Frames and frame elements, combined with the linguistic expressions that evoke the conceptual metaphors in the story, help paint a precise picture of animals in the stories. The ambivalent cognitive structures are revealed based on the analysis conducted through frameNet and conceptual metaphors. Counter frames and conceptual metaphors are proposed to look for alternative cognitive structures that are consistent

with the principles of ecolingistics. In the following lines, the steps of the analysis are enumerated along with the results and discussion of each step.

4.1 The analysis at the lexical level (FrameNet)

The first step of the analysis shows how animals are represented at the lexical level through the cognitive tool of frameNet which is a large database that provides background information about the lexical units associated with the animals in the form of adjectives and verbs. Thus, the semantic frames of the lexical units, along with the frame elements, are explored. The two stories share some themes which are supported through example sentences extracted manually from the stories and labeled with the frame elements. In the following lines, the themes and the examples are clarified.

The representation of animals in relation to nature

The first theme is the theme of the representation of animals in relation to nature. Frames like residence attests to the fact that the author is keen to show how nature is interrelated to the animals throughout the stories. The resident is an animal and the place is a part of nature. The use of the non-core frame elements such as manner which is *happily* in many examples is a welcome addition to the sentences. The author gives many details to ingrain in the children's minds that whatever is related to animals has positive connotations. Other frames such as locating and self_motion illustrate the same idea. Whether the animals are assigned the frame elements of agent or self_mover, the place in all the examples is *valley or land* which is no doubt related to the environment. The activities associated with the animals also enhance the positive representation. Animals are shown as playing or enjoying their time or looking for whatever they need which is provided by nature. As for the ecological philosophy, this is what is needed to promote the principles of ecolinguistics. These kinds of frames should be part and parcel of the environmental education fed to children through stories or otherwise. This theme is exemplified through the following sentences:

Frame: Residence

عاشت الغزلان فى هذة الأرض الواسعة وهى سعيدة.

[Resident The deer] lived [target] [place in this wide land] [manner happily].

Frame: Locating

كانت الغزلان تجد فى هذا الوادى الخصيب كل ما تحتاج اليه.

[Agent The deer] found [target] [place in this fertile valley] [sought_entity everything they needed].

The attributes assigned to the animals

Another point the author wants to raise through the stories is the attributes that are associated with the animals. In fact, the attributes are

divided between being positive and negative. For example, positive qualities include *kind, meek, cute, kind* and *smart* which are assigned to the deer, the rooster, the dog, the cow, while the negative include *cunning* and *evil*, which are associated with the lion and the fox. Showing animals as joyful creatures and living their lives like human beings helps children to relate to them and form a kind of close connection which is consistent with the principles of ecolinguistcs. Seeing animals as living beings and including them as part of the ecosystem is all what ecolinguistics calls for. Frames such as being _active and speed_description put animals in a positive light. Moreover, frames like social_interaction_evaluation, and mental_property are employed in the stories to add extra positive characteristics where animals are given a lot of qualities that children wish to have, which brings them closer to the animal world, as shown in the following examples:

Frame: Self_motion

كانت الغزلان تلهو وتلعب فى الأرض الواسعة.

[Self_mover *The deer*] were playing [target] [place *in this wide land*].

Frame: Being_active and speed_description

الغزال دائما نشيط و سريع الحركة.

[Entity *The deer*] was active and fast [target].

Frame: Social_interaction-evaluation Frame

الغزلان جماعة طيبة متعاونة.

[Entity *The deer*] are a cooperative and good [target] group.

Frame: Mental_property

الغزالة الذكية.

The smart [target] [entity *deer*].

حلمت أن الثعلب المكار هاجمنى.

I dreamt that the cunning [target] [entity *fox*] attacked me.

Related to the positive attributes of the animals, frames like awareness and cogitation, where the animals are assigned the role of cognizer, confirm the fact that animals can fend for themselves, and that they have capabilities that will get them out of difficult situations. The frame element content in the frame awareness shows how animals are perceptive, represented in the rooster, and thus they can be the best companions to human beings. The following examples confirm the previous ideas.

Frame: cogitation

الديك الظريف فكر بسرعة.

[Cognizer *The rooster*] thank [target] [manner *quickly*].

Frame: Awareness

عرف الديك أن الثعلب لم تكن نيته طيبة.

[Cognizer The rooster] knew ᵗᵃʳᵍᵉᵗ [content that the fox's intention was not good].

عرف أن الثعلب حيوان مكار مخادع.

[Cognizer He] knew ᵗᵃʳᵍᵉᵗ [content that the fox was a cunning and deceiving animal].

The unity and collaboration between the animals in the stories

Among the many themes introduced in the stories is the theme of cooperation between animals where they are shown as one unit which further endears them to the young readers. Frames like come_together are used very often in the stories which are evoked by lexical units such as *meet*. The animals are assigned the frame elements of partners. They always meet to either celebrate or to discuss an issue that they have.
Frame: Come_together

التقى الديك بالفراخ العزيزات.

[Partner 1The rooster] met ᵗᵃʳᵍᵉᵗ [partner 2the dear hens].

اجتمع بعض الغزلان مع بعضهم البعض.

[Party1 Some deer] met ᵗᵃʳᵍᵉᵗ [party 2 each other].

When the frame elements of self_mover and the co_theme are associated with the animals, this means that the author wants to highlight how the animals occupy the position of the subject and the object, as they share various activities through frames such as self_motion. Moreover, assigning the frame experiencer to the animal is significant especially when the stimulus is happy feelings induced by other animals as in the frame of emotion_directed. The following examples bear witness to the previous comments.
Frame: Self_motion

الديك الظريف خرج يتمشى مع الفراخ الصغيرة.

[Self_mover The rooster] was walking ᵗᵃʳᵍᵉᵗ [co-theme with the small hens].
Frame: Emotion_directed

ستكون أنت سعيدا بهدايا كثيرة.

[Experiencer you] will be happy ᵗᵃʳᵍᵉᵗ [stimulus with a lot of gifts].

The animals and the frame element of speaker

Giving animals voice in the story through the frames is a method employed by the author so that animals can be heard and be able to articulate their needs and emotions to human beings, especially young readers. The animals are assigned the frame element of speaker, and the message is sometimes positive and other times negative, based on the message the author wants to send to the children. The message in the frame itself triggers other frames. For example, some of the messages include frames such as possession where the possessed item is an idea

which reflects well on the animals and puts them in the role of cognizer. Similar frames like cogitation which is evoked by the lexical unit *think* entails a positive message where animals are shown as independent creatures who can figure out solutions to their problems, which is what many children hope to have. However, other messages include frames like attack and biological_urge, where animals are shown to attack each other, and this confirms the idea that the animal world is not safe, as shown in the following examples:

Frame: Statement

قال الديك" سأفكر فى حيلة ناجحة تخلصنى من مكر الثعلب المخادع" .

[*Speaker* The rooster] said *target* [*message* " I will think about a successful trick that will help me get rid of the cunning fox"].

قال الديك الظريف" حلمت أن المكار عوعو هجم على" .

[*Speaker* The cute rooster] said *target* [*message* " I dreamt that the cunning fox attacked me"].

أجاب الغزال المسن : حضر الأسد وزأر لأنه جائع يطلب الطعام.

[*Speaker* The old deer] said *target* [*message* "the lion came and he is roaring because he is hungry"].

خطرت لى فكرة وعزمت على تنفيذها.

[*Message* "I had an idea and I am determined to go through with it"].

The conflict between animals

One of the aspects expressed in the stories is the conflict between the animals where they are shown as enemies and cannot co-exist in peace, which entails that they cannot co-exist with human beings in peace, as well. Frames such as intentional_deception,and attack are all the evidence children need to exclude the animals from the ecosystem which does not comply with the principles of ecolinguistics. In these frames, the victim is an animal and the deceiver or assailant is another animal. Using lexical units like *trick* or *attack* will instantly evoke these frames in the children's minds.

Frame: Intentional_deception

انخدع الديك بكلام الثعلب.

[*Victim* The rooster] was tricked *target* [*deceiver* by the fox's talk].

Frame: attack

هجم الثعلب سريعا على الديك وخطفه.

[*Assailant* The fox] [*manner* quickly] attacked *target* [*victim* the rooster].

الأسد سيهجم علينا.

[*Assailant* The lion] will attack *target* [*victim* us].

Animals' representation through the neutral frames

Some frames are neutral and they are either assigned positive or negative connotations through the context in which they are mentioned. Frames such as locating and mental property are neutral but they are used in the stories to give negative connotations that will be associated with the animals for a long time to come. In the frame locating, the frame element of the sought_entitiy is negative, as the perceiver is an animal finding a chance to attack another animal. Even the mental property is negative as the animals, represented in the fox and the lion, are described as being cunning and evil. For instance,
Frame: Locating

وجد الثعلب الغدار فرصته.

[Perceiver *The treacherous fox*] found ^target^ [sought entity *its chance*].
Frame: Mental property

الثعلب المكار

^Target^ *The cunning* [protagonist *fox*].
In the following lines, the hierarchy of the frames will be highlighted to indicate how closely the frames in the stories are related.

4.2 The hierarchy of the frames in the stories
FrameNet does not just provide the frames and the frame elements evoked by the lexical units but it provides the frame-frame relations which indicate that the frames are not used separately but they are related. The related frames are traced in FrameNet so that apparently different frames can be linked if they share one or more frames in the higher cognitive hierarchy. Among these relations, is the relation of inheritance based on which the frames in the stories are connected as parent and child frames and used to form a hierarchy. For example, the frame of self-motion is evoked by the lexical unit *play*. This frame inherits from intentionally_ act which in turn inherits from the parent frame event. This is which is shown in the following figure.
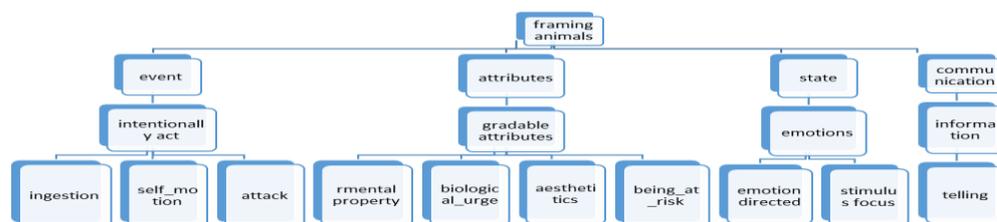

Figure 1: Visualization of the hierarchy of the frames

Based on the above figure, all the frames in the story go back to a limited number of parent frames which hold the stories together. The less the number of the parent frames, the more coherent the story is. As is clear, the parent frames are event, attributes, state and emotions. However, the parent frames lead to ambivalent stories, as the same parent frame includes both positive and negative frames. For example, the parent frame of attributes includes aesthetics, which is positive, and, at the same time, includes the frames of biological_urge and being_at_risk, which are both negative, given the negative connotations associated with them. Another example is the parent frame of event which includes attack, self_motion and ingestion. Attack is negative as it underscores the conflict between animals. Ingestion can be both negative and positive, depending on the context. In the stories, both senses are employed. Some animals are shown as ingestors of normal food that is eaten by people, while other animals are assigned the frame element of ingestor, and the ingestibles are fellow animals. This kind of ambivalent representation of animals is shown every step of the way in the analysis.

4.3 The analysis at the conceptual level (conceptual metaphors)

The main point the analysis revolves around is the representation of animals through frameNet and conceptual metaphors. FrameNet provides the frames and the frame elements which are labeled to the parts of speech in the selected sentences. Moreover, conceptual metaphors are used in the stories to confirm the message derived by FrameNet in an effort to leave no doubt in the children's minds as to how the author wants them to perceive the animals. Conceptual metaphors are used in the stories as well to help children form a complete picture about animals. By simplifying the abstract concepts through understanding them in light of the concrete concepts, children are able to get what animals really mean to the ecosystem lexically and conceptually. In the following lines, the linguistic expressions associated with the animals, and which motivate conceptual metaphors, are explored along with the types and their contribution to the animals' representation in the stories.

In the ontological metaphors, concepts are given the qualities of objects or people so that they can be easily understandable. For example,

وجد الثعلب الغدار فرصته ـ تخلص الديك من أذى الثعلب ـلقد كشفت السر ـ خطرت لى فكرة ـلا خيار لنا

The cunning fox found his chance, the rooster got rid of the fox's harm, I got an idea, I revealed the secret.

These linguistic expressions motivate ontological metaphors where the abstract concepts of secret, ideas, option, hurt and opportunity are all conceptualized in terms of objects; objects to be revealed, found, lost, get

rid of and had. All of these linguistic expressions are metaphorical because of the opposition between the metaphorical uses of the frames in these examples. For instance, the lexical unit *have* in we *have no option* or I *have an idea* evokes the frame of possession where the possessed item is an object in the annotated examples in the FrameNet database. However, in these examples, the possessed items are abstract concepts such as ideas, chance, options and secret and that is when the concept metaphor is created.

Ontological metaphors are also motivated through personification where the abstract concepts are given human qualities such as سأفكر فى حيلة تخلصنى من الثعلب *I will think of a trick that will help me get rid of the fox.* In this example, the trick is conceptualized in terms of attributes associated with people. The trick is shown as a person who can help get rid of a fox. Also, this example is associated with the frame intentional_deception which, used in this context, gives rise to a very poor representation of animals in the stories which totally negates how animals are supposed to be represented. However, in the same example, the frame awareness is evoked through the lexical unit think which evokes a positive representation of animals as cognizer is the frame element associated with the animal in the story. Thus, the same example can give both positive and negative representation of animals and that is where the ambivalent representation of the stories comes from.

The orientational metaphors abound in the stories, as well, including linguistic expressions such as

الديك صحا من النوم كانت الغزلان تشعر بالسرور كانت الغزلان تشعر بأشد الحزن.

The rooster woke up, the deer were happy, the deer were sad

The above examples motivate orientational metaphors such as CONSCIOUS IS UP, HAPPY IS UP and SAD IS DOWN respectively. This helps the children share the same emotions that animals have during their daily lives, and thus children can relate easily to the animals and can include them in their lives and consider them worthy of inclusion in the ecosystem. Thus, children will do their best to adopt behaviors that make animals happy and avoid behaviors that cause sadness in animals.

The conceptual metaphors CONCEPTS ARE CONTAINERS OR STATES ARE LOCATIONS can be found in the following examples,

الغزلان نعمت بحياة هادئة فى هناء واستقرار. ـعاشت الغزلان فى حب وصفاء

The deer lived in love and serenity, the deer had a quiet life in bless and stability.

Abstract concepts such as *love, clarity, stability* and *bliss* are all shown as containers where animals live. What consolidates this idea is the frame stability that is evoked by the lexical unit *live*, which adds to the

enjoyable life that animals have, that makes children really appreciate the value of animals.

Based on the analysis, two types of conceptual metaphors are detected in the stories: the ontological metaphors and the orientational metaphors. These two types share the fact that their structure is simple, as they either conceptualize the abstract concepts in terms of objects or people, as is done in the ontological metaphors, or in terms of space orientations such as up-down, on-off, in-out and many others, as in the orientational metaphors. The author depends, in the conceptual representation of animals, on conventional ontological and orientational metaphors, so as to fit the target young readers of the stories.

The last step of deducing the cognitive structures, based on the frames and the conceptual metaphors, is elaborated in the coming section.

4.4 The cognitive structures in the stories

The cognitive structures are the values embedded in the stories which are directed to the children. Based on the above frames and conceptual metaphors, the cognitive structures in the stories are highlighted. This is shown in the following figure.
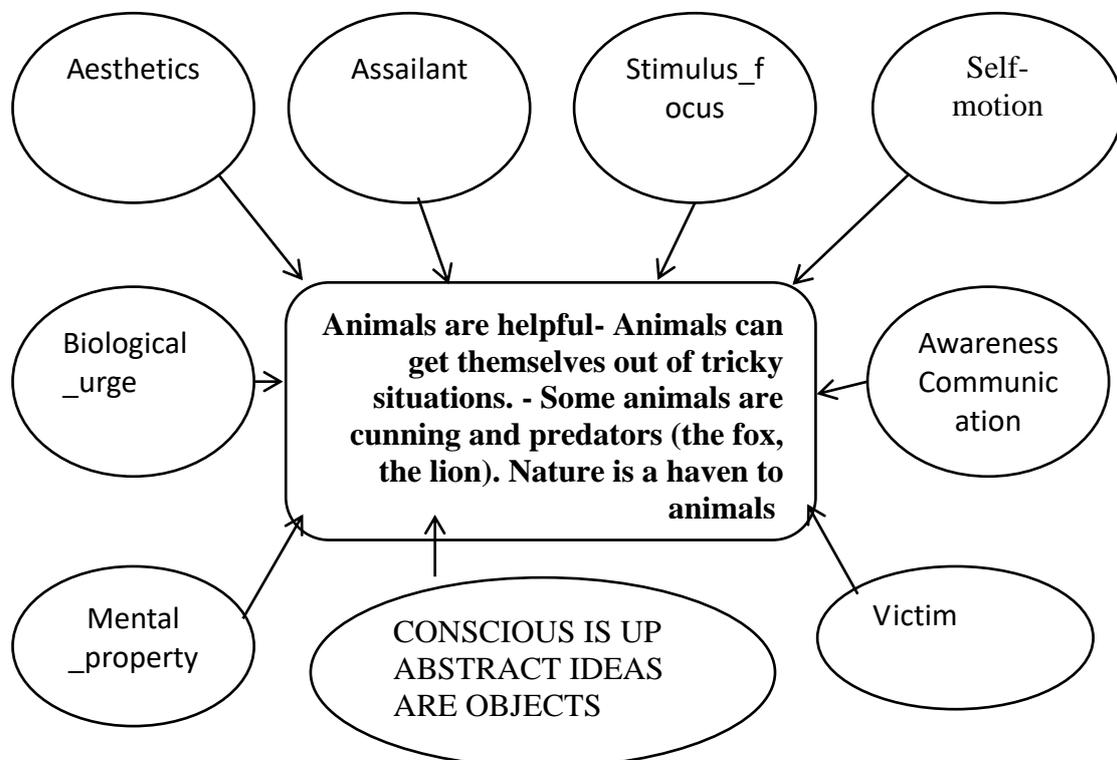
Figure 2: Visualization of the deduced cognitive structures

Based on the above figure, the cognitive structures that are deduced from the stories are ambivalent as they are divided between being positive and being negative. The negative cognitive structures include animals cannot live in peace, some animals are cunning and predators (the fox, the lion), while the positive cognitive structures include animals are helpful, animals can get themselves out of difficult situations and nature and animals are one. Thus, the cognitive structures in the stories are ambivalent, as the stories partly agree and partly disagree with the principles of ecolinguistics. Then, in the next step, counter frames and conceptual metaphors are proposed, and thus the positive cognitive structures replace the negative ones and the positive ones remain as they are and all the cognitive structures will be beneficial as a result. This is illustrated in the following figure.
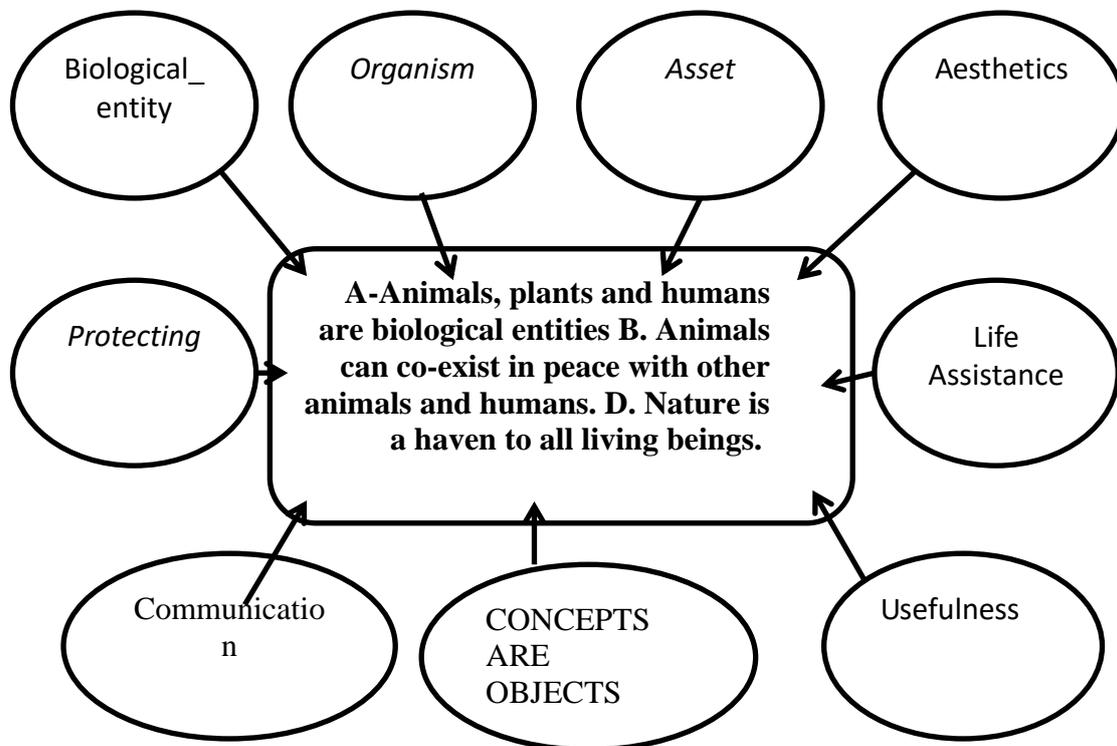
Figure 3: Visualization of the alternative cognitive structures

After replacing the frames that lead to negative cognitive structures and suggesting counter frames such as asset, life, organism and biological entity, and, at the same time, maintaining the positive frames that lead to the beneficial cognitive structures, all the cognitive structures become beneficial and paint a positive picture of animals in the stories. These are the cognitive structures that should be included in the environmental education targeted to children.

The stories aim to introduce young children to the elements of the environment, represented in the animals. At the conceptual level, the author employs only two types of conceptual metaphors, which are orientational and ontological metaphors. These two types are mainly motivated by body experience, which makes it easy for the children to understand the abstract concepts, which are difficult otherwise. Since they are grounded in bodily experiences and related to everyday life, they are used abundantly in the stories, as the concepts are understood in terms of objects, people or orientation spaces which encourage the children to relate easily to the metaphorical conceptualization of the animals in the stories. Moreover, the integration between conceptual metaphors and FrameNet through the evocative lexical units, that are common between the two, helps the children to deduce the cognitive structures that are embedded in the stories effectively.

Thus, the study shows children the value of animals through the recurrent themes in the stories. One of the themes is the strong connection between nature and animals which is illustrated through assigning the frame element of place to nature throughout the stories where animals are the agent, self-mover or resident and can share many activities in different places in nature. Moreover, nature, as well as, some animals in the stories, such as the rooster, the deer, the dog, the cow and many more, are given various positive attributes that put animals in a good light and further endear the children to all living beings. Another theme is the unity and cooperation between animals which is shown through frames such as assistance, come_together. Giving animals voice in the stories through the frame statement and request indicates the author's keenness to present every aspect related to their lives through them or rather in their own words. However, the ambivalent nature of the stories stems from the fact that other themes in the stories, as supported by frames and conceptual metaphors, do not paint the animals in the prettiest picture. Themes that focus on the conflict between animals and the negative attributes associated with the animals or highlighting the negative messages uttered by the animals, which mainly focus on how animals feed on each other, create a psychological separation between animals and the children. Thus, children will not be encouraged to include animals in their lives or their perception of the ecosystem.

Moreover, the study, in an attempt to be consistent with the calls of sustainability, harmony between all living beings and improve the human-animal relationship, bridges the gap between the deduced cognitive structures by promoting the structures that agree with the ecological

philosophy and replacing the structures that disagree with the principles using the same cognitive tools employed in the study as shown in the above figures. According to Diski (2012), people's experiences with animals have changed. Since people are branching out into the cities, their connection with animals has diminished and become restricted. So, animals, mostly, kept at a distance. Thus, the study aims to introduce notions that counter such ideas and bring children closer to animals by framing animals in ways that are consistent with ecolinguistics.

This study belongs to Environmental Education which provides sufficient knowledge and understanding about the environmental issues. It helps in the process of solving environmental problems, and also encourages people to develop attitudes and values that finally lead to the protection of the environment and understanding of interdependence of nature and people. Environmental education in the study is directed to children through non-formal educational activities in the stories. Thus, Environmental education, through the study, should include such frames and conceptual metaphors that evoke and ingrain in the children's minds the best possible representations of animals.

Conclusion

The study aims to shed light on the ambivalent representation of animals in two of Kamel kilani's children stories, namely; the cute rooster and the valley deer. Once the ambivalent cognitive structures are figured out, alternative positive ones are suggested to replace the negative structures in an attempt to raise the young generations' awareness about understanding their role towards the environment, including animals, and to help in maintaining the ecological balance through including all living beings in the ecosystem as integral elements that cannot be dispensed with. This is achieved cognitively through the use of conceptual metaphor theory and FrameNet. Conceptual metaphor theory helps in highlighting the portrayal of the abstract concepts in terms of the concrete ones, when it comes to the animals' representation in the stories. The conceptual metaphors that are found in the two stories are of two types, namely; orientational and ontological conceptual metaphors. These two types are motivated by physical experience which makes it easy for the children to understand the conceptualization process. The conceptual metaphors, along with the frames and frame elements evoked by the lexical units associated with the animals, are more than representative of the ambivalent representation of the animals in the stories, as has been shown throughout the analysis.

The analysis results in a set of cognitive structures that are divided between being destructive and beneficial in the same story, hence the

ambivalent representation of animals. Cook (2015) maintains that ecolinguistics is responsible for resisting the destructive depiction of animals in various discourses. Thus, the study is keen to expose the ambivalent cognitive structures, and also suggest alternative ones. Moreover, according to ecolinguistics, the role of the researchers is to help bridge the gap between the two opposing parts of the stories by using the same tools that originally result in the ambivalent structures, and replacing the destructive cognitive structures by positive ones through suggesting alternative examples. This is done in the analysis through suggesting counter frames and conceptual metaphors. Thus, all these cognitive structures in the stories become consistent with the principles of ecolinguistics, as they call for life-sustaining relationships among all living creatures, and, thus, preservation of the environment and sustainability is achieved. These kinds of stories should be promoted among children to instill in their minds how animals should be included in the ecosystem, and should be treated with respect, and not just used for the sake of the benefit of human beings. Thus, the study promotes the beneficial cognitive structures that are espoused by ecolinguistics. The study also contributes to environmental education which entails education for the environment, about the environment and through the environment.

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