

A Multimodal Critical Discourse Analysis of Stance-taking in English News Reports on the Environment

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Abstract

How corporate media represents environmental discourse (e.g., global warming) can dramatically influence how humans perceive environmental changes. Accordingly, this study employs multimodal critical discourse analysis (MCDA) to examine how English-language news agencies targeted toward Asian and Western audiences take stances on environmental issues. Drawing on one recent conceptualization of ideology in discourse, we explore how linguistic and visual strategies shape readers' perceptions of environmental responsibility and awareness. To accomplish this, MCDA was combined with ecolinguistics and used to analyze eight news items. This sample was purposefully selected from *China Daily*, *Thai PBS*, *the Guardian*, and *NBC*. More specifically, we analyzed linguistic devices at the lexicogrammatical level, and images at the discourse semantics level from both Asian-targeted and Western-targeted news agencies. Three dominant ideologies were found in the stances taken by these agencies, which involve the obfuscation of causal agents and a corresponding focus on the results of the processes these hidden agents are responsible for. The findings demonstrate the utility of MCDA in revealing dominant ideologies within environmental news and, in doing so, emphasize the power of language and images in crafting ideological narratives. Overall, our analysis has implications

for understanding corporate media's influence on environmental discourse and public perceptions.

Keywords: ecolinguistics, cross-cultural news comparison, environmental news discourse, climate ideology, MCDA

Environmental discourse can be seen in everyday life and is especially prevalent in mass media such as electronic and printed newspapers and magazines produced by corporations. However, even in the early days of discourse analysis, Van Dijk (1983, p. 28) pointed out that media discourse could not simply be regarded as a “news-gathering activity,” as it is a complex process of presenting “knowledge, beliefs and opinions.” In other words, conducting media discourse analysis is an interpretative and reconstructive process, and during such processes, media discourse naturally or intentionally represents a particular stance about social events. Moreover, the media, especially news agencies, not only carefully choose words and other resources to express their meanings, but also purposefully construct unique views to stand out among a large number of stance-takers.

In addition to assuming unique views, corporate media also use language and images to construe strong stances that reflect implicit ideologies. To unveil the influence of language and other meaning-making choices on the conveyance of such ideologies in environmental news discourse, the analytical framework multimodal critical discourse analysis (MCDA) has been applied to diverse topics (Machin, 2016). For example, one MCDA study explored the environmental news reported by two American corporate media companies and highlighted the discrepancies among varied discourse subjects (Feng, 2014). Other studies have also sought to unravel various ideologies and have explored the discourse of online blogs (Walton & Jaffe, 2011), video clips on YouTube (Chun & Walters, 2011), and text and images on Flickr (Barton & Lee, 2013). One recent study even applied MCDA to the linguistic and visual resources in short videos on Chinese TikTok (Wang & Feng, 2023). However, although the construal of stance has been explored in various discourse domains, there is a dearth of studies focusing on environmental news discourse. This is important, because

how stance is constructed regarding environmental news discourse can influence how humans perceive their role in environmental issues.

Environmental stances are often reflected in professional reports and news agencies. The IPCC report in 2021, for instance, argued that melting glaciers and ice sheets are significant issues affected by climate change. Furthermore, the global biodiversity assessment conducted by IPBC in 2019 indicated that an estimated one million species are going extinct due to environmental issues. When it comes to these issues and others, the multiple viewpoints of actors and experts rely on discourse choices to support their policy claims (i.e., stance is one mechanism with which to persuade a reader to accept a politically and ecologically driven change). To catch the diversity of such viewpoints, we selected texts focusing on two topics: ice melting and mass extinction. Moreover, to explore potential differences arising from the source of production, we selected texts from diverse sources, namely *the Guardian*, *NBC*, *China Daily*, and *Thai PBS*. In other words, our sample comprised news reports from corporate media aimed at Western and Asian geographical audiences, who are assumed to hold different ideologies and different approaches to environmental issues. To explore how Asian-targeted and Western-targeted news agencies handle such reporting, an analysis of stance was conducted on environmental issues from a MCDA perspective. Overall, the present study discusses how stance is deployed by English language (EL) news agencies in news items and news images about environmental discourses, and the ideologies reflected in the stance resources from different EL news agencies. To accomplish this, we draw on Stibbe's ecolinguistics (Stibbe, 2015) and MCDA (Machin, 2016) to analyze environmental news discourse, with the goal being to disclose their underlying ecological ideologies.

Literature Review

News Discourse and Stance-taking

Considering news discourse within its communicative context there are relationships between producers and audiences of news discourse (Bednarek & Caple, 2012). In the analysis of news discourse, producers play a significant role in producing the news, and the news

process is complicated. In this complex process, several stances are set up by journalists to share their views and evaluation of specific topics. Thus, stance-taking should be clarified first.

As for definitions of stance, these can be demonstrated from two aspects: one is related to the positions that one takes up to people, objects, and ideas through communicative means (e.g., through language, see Du Bois, 2007); the other is from the communicative perspective, which is defined by Jaffe (2009, p. 3) as stance-taking to “take up a position with respect to the form or the content of one’s utterance, and is central because speaker positionality is built into the act of communication.” The two definitions align with this study, for news articles and images conveying stances would be involved in the analysis of the study. That is to say, news articles and images take up positions, thus they can be seen as social actors who evaluate, position, and align with others in the communicative interaction.

Stance is typically divided into two broad categories: affective stance and epistemic stance (Du Bois, 2007; Jaffe, 2009). News discourse is full of epistemic stance, which is closely linked to evidentiality and broadly refers to the *status* (epistemic stance) of knowledge. Consequently, stance-taking is partially dependent on a speakers’ knowledge base, which is embedded in their utterances (Kiesling, 2022). Moreover, stance can be set up by using linguistic forms (Kiesling, 2022). Thus, stance-taking sentences were selected from the present discourse and categorized by epistemic stance and affective stance to see how these stances were construed through linguistic forms.

Aside from being realized in written text, stance-taking can be represented though images as well. For example, one study looking at an online blog revealed how ideologies of race and class emerged through the language of humor (Walton & Jaffe, 2011), while one study on YouTube illustrated issues of race and Orientalism (Chun & Walters, 2011). Moreover, Barton & Lee (2013) analyzed stance-taking on Flickr in different semiotic modes (images and words) and writing spaces (title, description, tags, comments, sets, and groups).

Multimodal Critical Discourse Analysis and News

As already noted, through MCDA, we can unravel covert ideologies construed through meaning-making systems, giving insights

into how individuals and groups re-contextualize social practices and maintain control over ideology (Machin, 2016). However, news media express ideas and thoughts not only with language but also multimodally through varied semiotic resources (e.g., images), and they are both deployed for ideological purposes.

Nevertheless, Pauwels (2011) believes that visual research in different fields has a hidden danger of reinventing the wheel as it operates in its isolated networks. For example, one Chinese researcher, Feng (2014), found that discrepancies existed between discourse subjects in *the New York Times* and *Los Angeles Times*, and the discourse employed a considerable number of explicit words and phrases to highlight disagreements and conflicts. Moreover, many images were found to show negative connotations. Contrastingly, Wang and Feng (2023) applied MCDA to analyze linguistic and visual resources in short videos on Chinese TikTok. The study identified that personification was utilized to show Xi'an as "a stylish, young, popular, and international microcelebrity." (p.1) Furthermore, a historical city image was constructed by recreating the Great Tang dynasty, and the wanghong economy and urban policies in China were realized by the city branding discourse in the videos (Wang & Feng, 2023).

Overall, such studies illustrate how MCDA is effective in analyzing language by exploring lexicogrammar (e.g., words and phrases), discourse semantics (e.g., personification) and the visual (e.g., layout and color), and is a tool that plays a key role in disclosing dominant ideologies underlying news items.

Ecolinguistics and Environmental Discourse

Halliday (1992) emphasized that environmental issues are an integral part of applied linguistics such that language can impact the ecosystem and environmental problems. For Halliday, *ecolinguistics* emphasizes that there are significant effects of language on various ecological problems. Ecolinguistics is derived from two concerns: the first one is *eco*, where ecology is defined as "the interaction of organisms with each other and their physical environment" (Stibbe, 2015, p. 8); the second one is *linguistics*, which Halliday tied to how people use language to reveal stories and views. As Stibbe (2015, p. 19) proposes, "the 'linguistics' of the form of ecolinguistics is a variety of

linguistic theories to analyze patterns in the language in an attempt to reveal the underlying stories-we-live-by, as a step towards changing them”. The present study utilizes Stibbe’s understanding of ecolinguistics, which explores implicit meanings behind environmental discourse in the news.

According to Stibbe (2015), the “story” embedded in discourse is an ideology, a particular group’s belief system of the world that accounts for how the world was, is, will or should be. Furthermore, ideology is spread out into the way people think about their lives. Consequently, an ecolinguistic analysis of an ideology is not focused on justifying whether the ideology is true, but whether it encourages, protects, or destroys the ecosystem. Moreover, the focus on protecting or destroying the environment transfers from developing science and technology to cultivating wisdom, that is the *ecosophy* (Naess, 1989).

The term, *ecosophy*, may require further clarification at this point. Næss’s works revived thought on *ecosophy* by stating, “The direction in which the processes of evolution must proceed, namely towards increasing consciousness and thought, and forms having a greater and greater influence on their surroundings” (quoted in Crutzen 2002, p. 23). That is to say, the term *ecosophy* implies a lesser influence on the environment and a greater sustainability of human society (Levesque, 2016). *Ecosophy* treats “all creatures in the same way” and works to protect and widen them “because their reduction threatens the life conditions of humans” (Næss, 1989, p. 186). Referring to the idea of *ecosophy*, we use the term environmental awareness to show the protection behaviors of human beings, which is often reflected in the discourse we produce. Consequently, discourse analysis can identify “the ideology frozen in the discourse and finds ways to break the ice” (Bloor & Bloor, 2013, p. 12). In this way, the language of news discourse always underlies the meanings behind it. Therefore, some frameworks (e.g., CDA and MCDA) should be utilized to unravel implied meanings or real meanings of discourse to reveal people’s awareness of ecology critically, and Stibbe noted that critical awareness of the natural environment is reflected through analyzing linguistic devices in discourse (Stibbe, 2019, 2020).

Jocuns (2019) noted that environmental discourse, ecology, and sustainability belong to the paradigm of ecological linguistics.

Furthermore, according to Stibbe's understanding of ecolinguistics, language impacts the environment (Stibbe, 2015). Studies of environmental discourse mainly focus on the identification of linguistic devices that shape the ideology of such discourse. Lexically, some notable examples are ergative and nominalized verbs that were found to obscure the process of actions and suppress agents in environmental issues (Chen & Wu, 2019; Gerbig, 1993; Zhao, 2020). Grammatically, the application of passive voice and lack of active voice has also been noted as features of environmental discourse, and rhetoric, euphemism, erasure, and whitewash were applied (Kahn, 2006; Zhao, 2020). Most of these studies on environmental discourse applied critical discourse analysis (CDA) as their analytical tool to identify the linguistic devices from the lexical (e.g., nominalized verbs) and grammatical (e.g. passive voice), and semantic level (e.g., euphemism) which can be referred to in the present study.

From the review of the above sections, previous studies on environmental news discourse have not focused on both environmental news discourse and stance, and while most of them applied CDA as their tool for analysis, textual analysis was privileged over multimodal analysis. Thus, the present study utilizes MCDA to analyze stance-taking in the environmental discourse of news and news images by identifying the lexical and grammatical forms and elements of images. The specific research questions the study explores are as follows:

1. How do English-language news agencies construct stances in environmental news discourse?
2. What ideologies are manifested in the stances taken by different EL news agencies, and how do they differ?
3. In what ways are stances conveyed through images in environmental news items?
4. What ideologies are manifested from images in environmental by different EL news agencies?

Method

Research Context

The IPCC launched a Synthesis Report for the year 2023, along with the Sixth Assessment Report (AR6). The international climate research community overwhelmingly accepted the fact that human behavior is influencing climate change, which includes the impact of glacier melting. Previously, IPBC published a Global Biodiversity Assessment in 2019, indicating that one million out of eight million species went extinct. After these reports were published, as Dahl and Fløttum (2017, p. 126) note, “a multitude of viewpoints [were] represented in both expert and lay discourse”. To catch such diverse viewpoints, we selected news texts and their images on ice melting and animal extinction from the left-leaning *Guardian*, less left-leaning *NBC*, *China Daily*, and *Thai PBS* to disclose their ideologies for the environment. *The Guardian* is in consensus with the viewpoints of the IPCC and IPBC, as seen in their substantial resources covering ice melting and mass extinction. However, *NBC* covers fewer resources on these two topics. As for Asian-targeted news agencies, *China Daily* is the only Chinese newspaper that has effectively entered the international mainstream society and transmits alternative voices to international audiences, while *Thai PBS* holds the status of a state agency with legal personality and, thus, provides convincing reports. Considering the difference between the West and Asian-targeted agencies, ideological representation of them might be different for environmental reports.

Research Sample

The sample of news reports was purposively selected and focused on ice melting in Greenland and the Antarctic region, the impacts to wildlife, and protection for wildlife, as outlined in Table 1. The number of words in these news texts ranged from 400 to 900, which aimed to represent a diversity of stances in texts of similar length. Analysis of images was made possible through the involvement of images in each news item (12 images in total).

Table 1*Title, number of words and images of news items*

News item	Title	Number of words	Number of images
1	Greenland's ice melting faster than at any time in past 12,000 years (The Guardian, 2020-09-30)	778	1
2	Antarctic ice melting faster, say scientists (China Daily, 2020-11-30)	710	1
3	Sixth mass extinction of wildlife accelerating, scientists warn (The Guardian, 2020-6-1)	911	3
4	Protection efforts bring wildlife back from brink (China Daily, 2021-01-06)	508	1
5	'Zombie ice' from Greenland will raise sea level 10 inches (NBC, 2022-08-30)	878	1
6	Why are India's lions increasingly swapping the jungle for the beach? (the Guardian, 2023-05-19)	756	3
7	"Melting Greenland" film calls global attention to climate change (Thai PBS, 2023-06-10)	461	1
8	El Nino poses grave threat to Antarctica (China Daily, 2023-03-01)	595	1
Total	8	5597	12

Data Collection and Preparation

Eight news items were selected from news reports published between 2020 and 2023, and collected from the websites of the above news agencies to compare how such agencies report environmental news differently. Before collection, two criteria for selecting the news items were set up. First, English-only texts were chosen and second, they needed to have at least one image in each news item. As for the process of selection, a manual search was conducted. The keywords "ice melting" and "mass extinction" were regarded as hashtags for searching. Then, the official sites of each news agency were opened,

and we typed the two hashtags respectively in the “search” feature. The news items were then opened to judge if they fit the previous criteria. Finally, the qualified news items on websites were selected, copied, pasted, and stored in individual Word documents, and named as the example: “news item 1-China Daily-full title”. Moreover, the URLs of the original news items were copied and pasted at the beginning of the document for ease of follow up inquiries and to increase reliability of our analysis by cross-checking with the original format.

Data Analysis

The analytical framework employed in this study is underpinned by established theories and empirical findings, warranting further validation through citations from seminal research in the field. As seen in Table 2, the stance of the news was divided into two broad categories: epistemic stance and affective stance, which were informed by Du Bois (2007) and Jaffe (2009). Stance was analyzed critically from the lexical level, where words in the discourse were analyzed according to overlexicalization, repetition, and figures of speech, which are described in Machin and Mayr (2012) and Stibbe (2015). Overlexicalization, contrary to lexicalization, is the application of an overabundance of lexemes often giving rise to “a sense of over completeness” (Güldemann, 2010, p. 20) or over description. From the grammatical level, nominalization (Goatly, 1996; Halliday, 1998), active and passive voice, quotation and how participants are represented were also coded, which, again, are described in Machin and Mayr (2012) and Stibbe (2015). To analyze each image, object, setting, shot size, camera angle and gaze, we again referred to Machin and Mayr (2012) and Stibbe (2015). Table 2 shows examples from the dataset to clarify the category of stance-taking and how these linguistic devices work.

Table 2
Analytical framework

Stance-taking and Linguistic devices	Category	Example
Stance-taking	Epistemic stance	<i>e.g. ..., <u>the rate of melting could accelerate further to be four times greater than anything found in the past 12,000 years.</u></i>
	Affective stance	<i>e.g. ..., <u>adding it can occasionally be warm enough to wear a T-shirt.</u></i>
Lexical level	Overlexicalization	<i>e.g. <u>climate crisis/ climate disruption/ climate change;</u> <u>on the brink of extinction/ on the verge of extinction;</u> <u>hard-to-reverse/ irreversible</u></i>
	Repetition	<i><u>melting*8; loss*5; be likely to*5;</u> <u>rise*3; accelerate*2; unprecedented*2</u></i>
	Figures of speech	<i>e.g. <u>euphemism: the collapse of civilization</u></i>
Grammaticical level	Nominalization	<i>e.g. <u>human destruction of nature;</u> <u>climate disruption</u></i>
	Active and passive voice	<i>active voice: e.g. <u>Greenland's ice is starting to melt faster than ..., which will raise sea levels and could have a marked impact on ocean currents.</u></i> <i>passive voice: e.g. <u>We are increasingly certain ..., unless greenhouse gas emissions are substantially reduced.</u></i>
	Quotation	<i>e.g. <u>"We are increasingly certain that we are about to experience unprecedented rates of ice loss from Greenland, unless greenhouse gas emissions are substantially reduced," wrote Andy Aschwanden, of the Geophysical Institute at the University of Alaska Fairbanks, in a commentary accompanying the study.</u></i>
	Participants	<i>e.g. <u>the planet; human; a study; the team</u></i>

Table 2
Analytical framework (cont.)

Stance-taking and Linguistic devices	Category	Example
Image level	Object	<i>e.g. mountain; ice sheets; two persons; land; sea</i>
	Setting	<i>e.g. polar region</i>
	Shot size	<i>e.g. distant on mountains, close on land and two persons; close on ice sheets</i>
	Camera angle	<i>e.g. powerful: ice sheets; powerless: two persons, less land and mountain</i>
	Gaze	<i>e.g. how tiny people facing with the melting; seriousness of ice melting;</i>

Results

In this section, we discuss the analysis of news items beginning with an examination of stance. Then we shift the focus to lexical and grammatical analysis. Lastly, we explore image and text relations in the eight news items. The analysis was categorized into items from news agencies targeting Western and Asian geographical audiences.

Stance-taking Categorization

The present study focuses on discourses with stance-taking, so sentences containing stance were selected based on the categorization of stance-taking (Jaffe, 2009), and sentences with narration of fact and data were neglected. The total number of selected stance-taking sentences was 167. Most of these sentences (165, 98.80%) portrayed epistemic stance, which coincides with features of the news, whereas affective stance was only realised in two sentences (1.20 %). The two affective stance sentences were identified in news item 3, and there was no affective stance in news items 1, 2, 4, 5, 6, 7, and 8.

Many news items on environmental discourse made references to climate science and constituted stances based on previous knowledge and beliefs, such as findings of melting ice and mass extinction in previous research. From both the definitions of stance (Du Bois, 2007; Jaffe, 2009) and studies of stance (Chun & Walters, 2011; Walton & Jaffe, 2011), the stance is evaluative and expressed implicitly to reveal

how ideologies are construed. In these discourses, some linguistic features—for instance, nominalization and quoting—construed epistemic stance. Moreover, some instances of stance effectively erased human agents from direct involvement in environmental issues; on the other hand, scientific and rational-based epistemic stance items construed the environmental awareness. However, affective stances were only identified in Western-targeted news outlets, which suggested that Western news items have a certain environmental awareness.

Analysis of Western News Agency Items

Stance-taking Sentences. This section focuses on an analysis of stance from articles published by *the Guardian* and *NBC* (News items 1, 3, 5 and 6), and begins with an excerpt illustrating the author’s stance on climate change.

Excerpt 1

If greenhouse gas emissions continue to rise strongly, the rate of melting could accelerate further to be four times greater than anything found in the past 12,000 years. (News item 1, The Guardian)

In Excerpt 1 on ice melting, “could accelerate” reveals the author’s stance toward a future situation of ice melting based on the knowledge of greenhouse gas emissions, which was consistent with features of epistemic stance. “Greenhouse gas emissions continue to rise strongly” is an ergative sentence with nominalization (i.e., the affective or medium that would typically be a direct object in an active voice clause has become the agent [subject] in a process of rising). Consequently, such a construction obscures the process of emitting greenhouse gases, and the “emission” could not be conducted by itself. Humans as agents of such emissions were neglected, and as such should be responsible for emitting greenhouse gases.

However, affective stances were used only in the western news items, as show in Excerpt 2.

Excerpt 2

However, there is still hope. (News item 3, the Guardian)

In Excerpt 2, an existential clause is used to show the author's best wishes for animals: "However, there is still hope". That is to say, it seemed that the news maker was aware of the enhanced conservation of animals intrinsically. Furthermore, in comparison with the news from the Asian-targeted outlets on the aspect of affective stance, news from the Western-targeted outlets were more emotional on mass extinction issues, and had an environmental awareness about protecting nature, which is partly conveyed by affective stance.

Imagery. Consistent with Barton & Lee's (2013) assertion, images were analyzed as contextual supplements to text. Images from Western-targeted sources, such as in Figures 1 and 2, visually underscore the gravity of ice melt, reinforcing the seriousness of the issue portrayed in the accompanying text.

Figure 1

*Image in News item 1,
the Guardian*



Figure 2

Image in News item 5, NBC



Images on mass extinction in both Western and Asian-targeted news items illustrate some endangered animals and their habitats, which establishes the stance of a small number of endangered animals and their habitats, as we can see in Figure 3. Figure 4, meanwhile, presents a scene of lions walking on the beach, which is not their original habitat, and establishes the stance that their habitat was damaged by the impacts of human beings.

Figure 3

Image in News item 3, the Guardian

**Figure 4**

Images in News item 6, the Guardian



Images with little to no appearance of human beings (Figure 1, 2, 3, and 4) construed an epistemic stance that humans are not responsible for melting ice and displaced animals.

Analysis of Asian News Agency Items

Stance-taking Sentences. The analysis now turns to Asian-targeted news agencies, specifically *China Daily* and *Thai PBS* (News items 2, 4, 7, and 8), beginning with Excerpt 3:

Excerpt 3

“Development of artificial breeding technology has also been a key contributor to the stable population growth of some endangered species,” Zhang said. (News item 4, *China Daily*)

In the above excerpt, epistemic stance is evidenced through a direct quotation, reflecting an informed viewpoint on the conservation of endangered species. This suggests that Asian-targeted news narratives sometimes rely on expert knowledge and exhibit less emotional expression compared to their Western counterparts.

Imagery. In parallel with the text, imagery in Asian-targeted news items reinforces the seriousness of environmental issues. Figures 5, 6, and 8 depicting isolated icebergs and wildlife, visually communicate the gravity of ice melt and the plight of endangered species without

showing human involvement, implying a distance from human responsibility. Conversely, Figure 7 includes human elements to signal the direct impact of climate change on human life.

Figure 5

*Image in News item 2,
China Daily*

**Figure 6**

*Image in News item 7,
Thai PBS*

**Figure 7**

*Image in News item 8,
China Daily*

**Figure 8**

*Image in News item 4,
China Daily*



The absence of humans in Figures 5, 6, and 8 aligns with an epistemic stance that indirectly suggests that human agency in environmental degradation is not the focus. However, Figure 7 juxtaposes this by highlighting the human cost of extreme weather events, thereby underscoring the direct consequences of environmental issues on human communities.

Lexical Analysis

The lexical examination of the news items identified three primary features: repetition, overlexicalization, and metaphors. These were instrumental in forming stances and portraying ideologies across Western and Asian-targeted news agencies.

Lexical Analysis of Western-Targeted News Agency Items

Repetition for Emphasis. Repetition emerged as a salient feature, particularly in *The Guardian*'s and *NBC*'s reporting on iceberg melting, where the words “melting”, “accelerate”, “loss”, and “sea level rise” were reiterated to align with the sense of urgency suggested by the headlines. Two reports from *the Guardian* on mass extinction repeatedly used the words “extinction”, “habitat”, “wildlife”, “urgent” to reveal the emergency of mass extinction. Phrases such as “health and wellbeing”, “effort”, “protected area”, and “relocate” were reiterated to emphasize the effects of humans and improvements conducted by humans. Such repetition serves to focus the reader’s attention on key issues and implicitly suggests their importance and immediacy but does not point out humans. They were not emotional but objective and used to construe epistemic stances in the news discourse.

Overlexicalization and Emphasis. Overlexicalization was apparent, with multiple synonyms such as “climate crisis,” “climate disruption,” and “climate change” being used to describe environmental issues in *the Guardian*, each framing the situation with varying degrees of severity. Similarly, terms like “melt”, “disappear”, and “ice loss” were used to detail the effects of climate change in *NBC* reporting, reinforcing the gravity of the issue without explicitly assigning responsibility. Moreover, the terms “carbon pollution/ warming/ warm” were deployed to stress the reasons for climate change.

Words and phrases regarding mass extinction in the Western-targeted news items “this rate of loss”, “the loss of one species”, “biodiversity loss”, “on the brink of extinction”, and “on the verge of extinction” were used to describe the extinction issues of wildlife. Varied adjectives “unprecedented/deciduous/unusual/incredible/ surprising” were employed to indicate the degree of severity. Overlexicalization

of protective actions was also identified. Verbs “reassess” and “relocate” showed human actions for protection.

Epistemic stances were construed by overlexicalization as well. They were not emotionally uttered, and they were objective. This is based on the exact and measured data for the degree of severity. Like repetition, these over-lexicalized words and phrases lessened human’s responsibility for the destruction of nature as they merely emphasize the issues but do not mention humans.

Metaphors and Implicit Messaging. In the Western-targeted reporting, metaphors, and euphemisms were used to articulate the consequences of environmental degradation, with phrases like “a domino effect”, “more like one foot in the grave”, and “the collapse of civilization” evoking images of widespread and irreversible impact. Sentences “an ice cube put in a cup of hot tea in a warm room” and “your ice cube was put in warmer tea” were employed to form the image of the impact of the warm temperature. Personifications such as “starving” to describe the ice implied a dire, life-threatening situation for the environment. These figures of speech enriched the narrative by adding an evaluative dimension that subtly influenced the reader’s interpretation of the issues.

Lexical Analysis of Asian-Targeted News Agency Items

The lexical analysis identified key features such as repetition and overlexicalization in articles from the Asian-targeted news outlets, *China Daily* and *Thai PBS*, which illustrate environmental issues.

Repetition for Emphasis. Repetition was notably used to highlight the central themes in the discourse. For instance, the terms “melt” and “climate change” appeared frequently, signaling the critical nature of the topic, and reinforcing the message without directly implicating human activity. The repeated use of “protection” and “wildlife” in news headlines and bodies, and “effort” and “stable population growth” also subtly crafted a narrative around conservation efforts and ecological awareness.

Similar to the repeated lexis used in the Western-targeted news items, repeated words and phrases in the Asian-targeted news construed

epistemic stances as well. These lexemes were objective but not emotional and used to illustrate issues of ice melting and great extinction. However, these repeated words merely emphasized the issues and did not mention humans. Furthermore, stances on the protection and promising future of the natural environment were construed by repeated words and phrases to reveal humans' awareness of and respect for other living things on our planet.

Overlexicalization and Emphasis. Overlexicalization was evident in the diverse expressions used to describe climate change and its impacts, such as “climate change”, “extreme weather”, and “accelerated warming”. Adjectives “catastrophic”, “dramatical”, and “intensifying” were used to show the speed and seriousness of ice melting. The use of varied terms to describe the irreversible nature of extinction, like “hard-to-reverse” and “irreversible” underscored the severity of the issue. Similarly, positive descriptors such as “steadfast”, “steady”, and “stable” in the context of species growth suggested a favorable environmental trend and reflected human efforts in conservation.

Similar to the overlexicalization in Western-targeted news items, the synonyms discussed above construed epistemic stances as well. These synonyms were used to emphasize understanding of previous studies and knowledge about ice melting and mass extinction. Like repetition, these over-lexicalized words and phrases lessened human responsibility for the destruction of nature as they merely emphasized the issues but not humans as agents. Furthermore, positive descriptors were applied to show the growth of species, which was based on the findings of previous studies. Such overlexicalization of protection and its effect revealed human awareness of respecting other living things as well.

Metaphors and Implicit Messaging. Metaphors provided vivid imagery, as seen in the description of emperor penguins in Excerpt 4 as the “iconic poster child” of Antarctica. This metaphorical language serves to connect readers emotionally with the subject matter, implying a deeper ecosophical understanding and concern for the natural world.

Excerpt 4

Emperor penguins are the iconic poster child of Antarctica. (News item 2, China Daily)

As mentioned in the previous discussion of Western-targeted news, metaphors are inclined to construe epistemic stance and were used to describe objective matters.

Grammatical Analysis

Three significant grammatical features, nominalization, overlexicalization, and metaphors, were identified in these eight news items, and they were applied to construe stances and reveal ideologies of news items from Western and Asian-targeted news agencies.

Grammatical Analysis of Western-Targeted News Agency Items

Nominalization and Agency. Nominalizational phrases were categorized into environmental issues and human behaviors. Environmental issues included some globally known climate issues such as “global heating”, “greenhouse gas emissions”, and “climate disruption”. Issues directly caused by climate change were demonstrated by nouns and noun phrases as well, for instance, “increased loss of ice” and “sea level rises”. Issues on mass extinction deployed some noun phrases, for example, “destruction of habitats”, and “habitat loss”. Behaviors of the human being to nature were transformed into nouns as well, such as “the wildlife trade”, “the overhunting of”, and “destruction of habitats”. Furthermore, efforts paid by human beings were expressed by nouns, for instance, “conservation”, “recolonization”, and “relocation”. Nominalization, which transfers verbs, adjectives, and adverbs into nouns and noun phrases, is an effective way to suppress the agent of the action process. Thus, it was used to hide human destruction and actions and foreground the environment in the sampled articles.

Quotation and Expert Perspectives. Another prominent feature was quotation. Four news items employed quotations from some professional agencies and the viewpoints of experts. Direct and indirect quotations were applied in the four news items and accounted for more than half

of all stance-taking sentences. Quotation is an effective way to set up an epistemic stance because news items often quote the opinions of experts and findings of relevant studies. Moreover, it ensures the scientific and objective features of the news item, downplays news makers' responsibility, and helps set up a stance, as shown in Excerpt 5:

Excerpt 5

The researchers also warned of a domino effect, with the loss of one species tipping others that depend on it over the edge. "Extinction breeds extinctions," they said, noting that unlike other environmental problems extinction is irreversible. (News item 3, The Guardian)

Taking Excerpt 5 as an example, indirect and direct quotations were applied to show the seriousness and effect of extinction with objective quotations from researchers. Researchers' views are presumably more professional and reliable than others. In this way, epistemic stance was construed by deploying a large number of quotations in these news items, and responsibilities inclined to belong to "the researchers".

Representation of Participants. Participants represented in the four news items involved two sorts: aggregated mass and individual. The aggregated mass phrases lessened human responsibilities through a generalized, collective description, whereas an individual with a specific description indicated the human's respect for other living things. To be specific, participants related to human beings almost always appeared as aggregated masses such as "the team", "scientists", "researchers", and "humanity". These terms downplayed the responsibility of any named individual/group. Other animate participants, which represented other creatures, for instance, "Sumatran rhino" and "Asiatic lion" were expressed as individuals and with specific names and showed human's carefulness to other creatures. What is more, varied participants mentioned in news items indicated authors' previous knowledge about these participants, which construed epistemic stances as well.

Voice and Agency. Less passive voice was applied in four news items than the use of active voice. Both active voice and passive voice can

be used to express viewpoints, and epistemic stance can be established by using them.

As for the application of passive voice, in Excerpt 6 agentive human beings, who could reduce gas emissions, were hidden by using passive voice with agent deletion in combination with nominalization, the latter further backgrounds an accompanying action process in the chain of cause and effect.

Excerpt 6

..., unless greenhouse gas emissions are substantially reduced,
(News item 1, The Guardian)

Excerpt 7

Zombie ice from the massive Greenland ice sheet will eventually raise global sea level by at least 10 inches (27 centimeters) on its own... (News item 5, NBC)

Furthermore, active voice sentences were applied to hide human's responsibilities. As seen in Excerpt 7, where "zombie ice" will not raise global sea level without human intervention, but any mention of humans was hidden in this sentence.

In summary, the grammatical structures used in Western-targeted news articles serve to frame environmental issues in a way that emphasizes the seriousness of the situation while often masking the human activities driving these changes.

Grammatical Analysis of Asian-Targeted News Agency Items

Nominalization and Agency. In parallel with Western-targeted news agencies, Asian-targeted news reports utilized grammatical features such as nominalization to obscure processes. Phrases like "climate change", "carbon emissions", and "coastal inundation" background the underlying activities contributing to these issues, while terms such as "urban development", "urbanization", and "road destruction" imply human actions without explicitly mentioning the actors involved. However, efforts paid by human beings were expressed by nouns and noun phrases as well, for instance, "stable growth", "protection efforts",

“habitat protection”, and “wildlife protection regulation and management rules”. These emphases on human efforts indicated a respect from human beings for other living things.

Quotation and Expert Perspectives. Similar to their Western-Targeted counterparts, Asian-targeted news items frequently incorporated expert testimony, grounding their reporting in scientific authority. For example, consider Excerpt 8:

Excerpt 8

Stronger El Nino weather patterns may speed up the “irreversible melting” of ice shelves and ice sheets in Antarctica, which would have a significant impact on global sea levels, according to new research. (News item 8, China Daily)

In Excerpt 8, an indirect quotation was deployed to indicate the rapid speed of ice loss with specific evidence from a study. This approach bolsters the article’s epistemic stance by leveraging research findings, which, while informative, may also deflect from the news producers’ narrative input.

Representation of Participants. Aggregated mass and individuals were deployed as participants in these four news items also. To be specific, participants related to human beings always appeared as aggregated masses such as “Chinese scientists”, “experts”, and “advocates”, which showed the general mass of people and lessened the responsibility of a specific person. What is more, “China” was mentioned several times as the participant aggregated mass of news. Other participants were other creatures, for instance, “Adelie penguins” and “crested ibis” were expressed as taxonomic categories with specific names, which indicated an environmental awareness.

Voice and Agency. The use of active voice predominated the discourse, occasionally masking the responsibility of human agents in environmental changes through nominalized participants. Passive constructions, where they appeared, similarly diminished direct attribution of human involvement in ecological issues through agent deletion. For instance,

in Excerpt 9, the agentive human beings who could “ban” and “release” were excluded.

Excerpt 9

To protect the species, commercial logging has been banned in several parts of Shaanxi since 1999 and an environmental protection regulation for the area they inhabit was released in 2007. (News item 4, China Daily)

Excerpt 10

Antarctic ice melt will bring rising ocean level that will have a catastrophic impact on low-lying island nations in the Pacific. (News item 8, China Daily)

Furthermore, active voice with nominalized participants was applied to hide human responsibilities. As seen in Excerpt 10, Antarctic ice melt is not responsible for the rising sea levels and impact on low-lying island nations, as it is human beings that are ultimately responsible.

In summary, the grammatical choices in Asian-targeted news articles contributed to a narrative that emphasized the gravity of environmental challenges while often minimizing explicit reference to human responsibility.

Image Analysis of Western-Targeted Media

Visual Reinforcement of Textual Themes in Western-targeted News

Images of four news items of the West-targeted reports were closely related to the content of the news and assisted in setting up stances in a text. Icebergs applied in ice melting in Figure 9 and a floating and isolated ice sheet in Figure 10 were the most powerful ones with close shots in each image. The cloudy sky and a lonely little boat with caliginous light in Figure 10 assisted in outlining a current and worrying atmosphere of icebergs in polar regions. Other objects, such as the two persons in Figure 9, were powerless and presented with

distant and unclear shots, which suggested there was little direct impact from human beings.

Figure 9

Image in News item 1, the Guardian



Figure 10

Image in News item 5, NBC



Images in news items on mass extinction kept focusing on animals and their habitats such as a rhino, frog, and giant turtle, and their habitats in Figure 11, and lions in an unusual habitat of beaches in Figure 12 were all with clear and powerful shots and camera angles.

Figure 11

Images in News item 3, the Guardian



Figure 12

Images in News item 6, the Guardian

***Image Analysis in Asian-Targeted Media******Visual Reinforcement of Textual Themes in Asian-Targeted News***

Similar to Western-Targeted news, images of four news items from the Asian-targeted reports were closely related to the content of the news and helped to establish the stances of the authors. Icebergs applied in ice melting in Figure 13 and floating ice sheets and large areas of melting water in Figure 14 were the most powerful ones with close shots in each image. The cloudy sky and penguins on the edge of the iceberg in Figure 13 all assisted in outlining current and worrying situations related to icebergs as well.

Figure 13

Image in News item 2, China Daily

**Figure 14**

Image in News item 7, Thai PBS



Other objects of two persons sitting on a station and surrounded with flooding water in Figure 15 were photographed with a clear angle. Images in news items on mass extinction focused on animals and their habitats, such as two birds on a tree branch in Figure 16. However, accompanying Figure 16 was mention of a number of endangered animals, yet they merely involved one sort of animals in the news.

Figure 15

*Image in News item 8,
China Daily*



Figure 16

*Image in News item 4,
China Daily*



Discussion

By analyzing lexicogrammatical devices as they relate to stance taking, three ideologies were found. The environmental awareness was conveyed by both Western and Asian-targeted news outlets; nevertheless, most sentences involved the obfuscation of causal agents and a corresponding focus on the results of the processes these hidden agents are responsible for.

Absence of Action Processes and Suppression of Agents

For both Western and Asian-targeted news items, stances were construed by epistemic markers and image elements. One of the most salient linguistic features of the eight news items was nominalization, yet the main aim of nominalization is to conceal processes (i.e., to reconstrue dynamic verbs as static nouns; Halliday, 1998; Stibbe, 2015). For example, in the eight news items, globally known environmental issues such as “global heating”, “greenhouse gas emissions”, “carbon

emissions”, and “climate disruption” were formed through a long-term acting process, where the destructive behaviors of human beings would be one of the major reasons for such issues. However, the use of nominalization downplayed the destructive behaviors of human beings. Similarly, in Chen and Wang (2019) and Zhao (2020), nominalizations were applied to obscure the processes and agents behind environmental issues.

Nominalizations also referred to human behaviors such as “the wildlife trade”, “the overhunting of”, “destruction of habitats”, “urban development”, “urbanization”, and “road destruction”, which were identified in both Western and Asian-targeted news items. In other words, action processes that affected nature, which would ordinarily be attributable to human beings, were obscured so that readers paid less attention to the root causes and more to the effects. However, human efforts for improving the environment, for instance, “conservation”, “habitat protection”, “recolonization”, “relocation”, “stable growth”, and “protection efforts”, were demonstrated as nouns and noun phrases to conceal the process of protection, which positively downplayed human actions. This is to say, both negative and positive actions instigated by human beings were backgrounded in the news discourse, which implies that corporate news writers and news agencies hide the human agents responsible for environmental issues, thus their environmental awareness is not strong.

The passive voice was also used to suppress the agents in the environmental discourse. Namely, passive voice was used to highlight the sufferer and suppresses the destructive agents; however, several passive voice sentences used in the news items suppressed the protective agent, for instance, “are reduced” and “has been banned”, “greenhouse gas emissions are substantially reduced”, and “To protect the species, commercial logging has been banned in several parts of Shaanxi since 1999”. In other words, although passive voice was used to background, suppress, or exclude human agents of environmental disasters, they were also used in sentences related to protecting the environment. Moreover, the higher frequency of active voice sentences indicates that the eight sampled news items preferred to use nominalization to downplay action processes and agent suppression. However, active voice was also applied to hide human responsibility, for instance,

“will raise” and “will bring rising ocean level”, “Zombie ice from the massive Greenland ice sheet will eventually raise global sea level by at least 10 inches”, and “Antarctic ice melt will bring rising ocean level”.

The images in these news items also contributed to the suppression of human agents in relation to environmental disasters. Relations between texts and images (Meinhof, 1994) in news item 1 to news item 5 overlap, which share the same component of the seriousness of ice melting, while the relations between images and texts in news item 8 involved displacement. Images in news item 8 were more reflective of the negative impacts of extreme weather threatening human daily life in urban areas, which was ignored in the written text. Similarly, images in news item 8 compensated for humanity’s inability to face natural disasters. Of all the images from the eight news items, only two images of humans appeared, in news items 1 and 8 images also concealed human beings, despite the fact that they are the major cause for pollution. Overall, environmental awareness in both the Western and Asian-targeted news samples was not strong. Specifically, they both applied nominalization, passive voice, and images to background actions and suppress agents. Human destructive behaviors could not be identified through the application of these linguistic devices and images.

Lessening Human Responsibility

More than half of epistemic stance-taking sentences were directly or indirectly quoted from some professional agencies’ or experts’ viewpoints. Quotations can downplay news writers’ viewpoints, thus lessening the responsibility of journalists or even news agencies. In other words, in our corpus, most voices of news participants are viewpoints stemming from quotations. Specifically, aggregated participants related to human beings, such as scientists, researchers, and experts, were quoted to obscure the specific person(s) responsible for the viewpoints. Human beings, both aggregated masses and individuals, were not present in images of the eight news items. Moreover, overlexicalization such as “climate crisis,” “climate disruption,” “climate change”, “melt”, “disappear”, “ice loss”, “this rate of loss”, “catastrophic”, “dramatical”, “intensifying”, “the loss of one species”, “biodiversity loss”, “on the brink of extinction”, “on the verge of extinction”, “unprecedented/deciduous/

unusual/incredible/surprising”, “hard-to-reverse”, and “irreversible” were applied with repetitive synonyms to overemphasiz issues of melting icebergs and mass extinction, where human agency was not involved. What is more, based on Schultz’s (2001) study, figures of speech downplayed unpleasant issues. Specifically, news items hid the seriousness of melting icebergs and mass extinction through language choices such as the euphemism “the collapse of civilization” and the metaphors “a domino effect” and “warmer air just as your ice cube was put in warmer tea”.

Applying others’ stances and overemphasizing environmental issues revealed that news items on ice melting and mass extinction are deliberately written in Western and Asian-targeted news outlets. Quotations, aggregated mass, repetition, overlexicalization, and metaphors, meanwhile, were deployed to lessen the responsibility of human beings. However, human beings should shoulder the responsibility to protect our mother earth.

Conveying Environmental Awareness

As several linguistic devices were employed to obscure human beings and their destructive action processes, we argue that both Asian-targeted and Western-targeted news outlets and agencies guide readers to pay less attention to humans’ destructive behaviors toward our planet, which reveals a lessened sense of awareness related to environment. However, the use of epistemic stances and the application of quotations in the present news items provides factual and professional information, which shows that news writers are rational toward environmental issues.

Moreover, active voice was the main clause type found in the news items; for instance, the frequent use of active voice such as “We have altered our planet so much that the rates of ice sheet melt this century are on pace ...” in news item 2 reveals the awareness of human’s destructive behavior to our natural environment. These are not consistent with Zhao’s (2020) study, which found that passive voice was frequently applied in demonstrating environmental issues. Our findings suggest that the news producers of our sampled news items have an awareness of the urgency of climate issues. Indeed, overlexicalization practices, which took place during the description of environmental

issues, constructed these issues as global and urgent problems that need to be improved. This coincides with Jocuns (2018)'s study on multimodal communication and learning in online instruction videos, which pointed out that cooking vloggers' videos overlexicalize evaluation in spoken language (e.g., inspired flavors, really tasty, incredible) when a person was construing themselves as a professional cook of a healthy meal.

What's more, specific names of creatures, for instance "Sumatran rhino", "Asiatic lion", "Adelie penguins", and "crested ibis" were involved in the news items, which suggests that the news writers of the sampled items sought to clarify specific and factual information instead of presenting general information on environmental issues. For instance, the metaphor, "Emperor penguins are the iconic poster child of Antarctic", is applied to describe the lovely and lively creatures affected by climate change.

Last but not least, the images used in the sampled news items were closely related to the news content, and to a large extent, they added to the seriousness of the damage of icebergs melting, revealed how humans are miniscule when we face nature, and showed endangered animals to audiences to attract readers' attention. All of this implies an environmental awareness from the sampled news items and news agencies.

Conclusion

This study's analysis of stance-taking in environmental news reveals a nuanced approach to reporting. While both Western and Asian-targeted news agencies conveyed an environmental awareness, there was a tendency to obscure the action processes and agents responsible for environmental degradation. Linguistic devices such as nominalization and passive voice, along with selective imagery, contributed to this obfuscation, often diminishing human accountability in environmental issues.

Despite the application of various linguistic strategies that may appear to contradict a strong commitment to ecosophy, there is still an implicit acknowledgment of its importance in the discourse. This suggests a complex relationship between journalistic practices and ecological awareness, one that is perhaps reflective of broader societal

attitudes toward environmental responsibility. The use of Multimodal Critical Discourse Analysis (MCDA) in this study has proven instrumental in uncovering these subtleties, demonstrating the value of such an approach in dissecting the implicit content of news discourse. However, the limited number of news items analyzed suggests a need for a broader corpus to establish more comprehensive insights.

As with any study of this kind, there are several limitations. First, the scope of this study is constrained by a limited sample of news items, which may not capture the full spectrum of environmental news discourse. Moreover, while the analysis of lexical and grammatical elements yields significant insights, it overlooks the socio-political matrices that influence news production and reception. Additionally, the restriction to English-language sources may obscure the variegated cultural perspectives characteristic of multilingual media landscapes.

In conclusion, while the findings indicate a certain degree of environmental awareness, there remains a gap between acknowledging environmental issues and explicitly addressing human responsibility. Future research, with a wider array of news sources, could further elucidate this dynamic and contribute to a deeper understanding of the role of environmental awareness in environmental news reporting.

References

- Barton, D., & Lee, C. (2013). *Language online: Investigating digital texts and practices*. Routledge.
- Bednarek, M., & Caple, H. (2018). *News discourse*. Bloomsbury Academic.
- Bloor, M., & Bloor, T. (2013). *The practice of critical discourse analysis: An introduction*. Routledge.
- Chen, L. L., & Wu, Y. J. (2019). A study on discourse of environmental news reports from the perspective of ecological linguistics. *Journal of Guangdong Polytechnic Normal University*, 1(1), 93-98. <https://doi.org/10.1371/journal.pone.0280190>
- Chen, X., & Wang, Q. (2019). Ecological discourse analysis of the tourism text in Jiuzhaigou scenic spot. *Journal of Luoyang Normal University*, 38(3), 25-29.

- Chun, E., & Walters, K. (2011). Orienting to Arab orientalisms: Language, race, and humor in a YouTube video. In C. Thurlow & K. Mroczek (Eds.), *Digital discourse: Language in the new media* (pp. 251-273). Oxford University Press. <https://doi.org/10.1093/acprof:oso/9780199795437.003.0012>
- Crutzen, P. J. (2016). Geology of mankind. In P. J. Crutzen & H. G. Brauch (Eds.), *Paul J. Crutzen: A pioneer on atmospheric chemistry and climate change in the anthropocene* (pp. 211-215). Springer International Publishing. https://doi.org/10.1007/978-3-319-27460-7_10
- Dahl, T., & Fløttum, K. (2017). Verbal–visual harmony or dissonance? A news values analysis of multimodal news texts on climate change. *Discourse, Context & Media*, 20, 124-131. <https://doi.org/10.1016/j.dcm.2017.09.003>
- Du Bois, J. W. (2007). The stance triangle. In R. Englebretson (Ed.), *Stancetaking in discourse: Subjectivity, evaluation, interaction* (pp. 139-182). John Benjamins Publishing Company. <https://doi.org/10.1075/pbns.164.07du>
- Feng, J. Y. (2014). 美国环境新闻报道的话语研究 — 以“哥本哈根气候峰会”为例 [A discourse study of environmental news in American Media — The case of “Copenhagen Climate Summit”]. *Foreign Language Research*, (5), 154-158.
- Gerbig, A. (1993). The representation of agency and control in texts on the environment. In R. J. Alexander, J. C. Bang, & J. Døør (Eds.), *Language and ecology: Proceedings of the symposium on ecolinguistics of AILA '93* (pp. 61-73). Odense University Press.
- Goatly, A. (2013). *Critical reading and writing: An introductory coursebook*. Routledge.
- Güldemann, T. (2010). Relexicalization within grammatical constructions. In J. Auwera & J. Nuyts (Eds.), *Grammaticalization and (inter-) subjectification*, (pp. 65-80) Koninklijke Vlaamse Academie van België voor Wetenschappen en Kunsten.

- Halliday, M. a. K. (1992). The challenge to applied linguistics: New ways of analysing meaning. In M. Pütz (Ed.), *Thirty years of linguistic evolution: Studies in honour of René Dirven on the occasion of his 60th birthday* (p. 59-96). John Benjamins Publishing Company. <https://doi.org/10.1075/z.61.09hal>
- Halliday, M. A. K. (1998). Things and relations. In J. R. Martin & R. Veel (Eds.), *Reading science: Critical and functional perspectives on discourses of science* (pp. 185-235). Routledge.
- Jaffe, A. (2009). *Stance*. Oxford University Press. <https://doi.org/10.1093/acprof:oso/9780195331646.001.0001>
- Jocuns, A. (2018). Multimodal communication and learning in on-line instruction videos. *Advances in Social Science, Education and Humanities Research (ASSEHR)*, 228. <https://doi.org/10.2991/klua-18.2018.6>
- Jocuns, A. (2019). Why is English Green? The preference for English on environmental discourse at a Thai university. *Manusya: Journal of Humanities*, 22(3), 289-320. https://brill.com/view/journals/mnya/22/3/article-p289_289.xml
- Jørgensen, M. W., & Phillips, L. J. (2002). *Discourse analysis as theory and method*. Sage.
- Kahn, M. (2006). The passive voice of science: Language abuse in the wildlife profession. In A. Fill & P. Muhlhausler (Eds.), *Ecolinguistics reader: Language, ecology and environment* (pp. 241-244). Bloomsbury Academic.
- Kiesling, S. F. (2022). Stance and stancetaking. *Annual Review of Linguistics*, 8(1), 409-426. <https://doi.org/10.1146/annurev-linguistics-031120-121256>
- Levesque, S. (2016). Two versions of ecosophy: Arne Næss, Félix Guattari, and their connection with semiotics. *Sign Systems Studies*, 44(4), 511-541. <https://doi.org/10.12697/SSS.2016.44.4.03>
- Machin, D. (2016). The need for a social and affordance-driven multimodal critical discourse studies. *Discourse & Society*, 27(3), 322-334. <https://doi.org/10.1177/0957926516630903>
- Machin, D. & Mayr, A. (2012). *Critical discourse studies: A Multimodal Approach*. SAGE.

- Meinhof, U. H. (1994). Double talk in news broadcasts: A cross-cultural comparison of pictures and texts in television news. In D. Graddol & O. Boyd-Barrett (Eds.), *Media texts: Authors and readers*, (pp. 212-223). Multilingual Matters.
- Naess, A. (1989). From ecology to ecosophy, from science to wisdom. *World Futures: Journal of General Evolution*, 27(2-4), 185-190. <https://doi.org/10.1080/02604027.1989.9972135>
- Pauwels, L. (2011). An integrated conceptual framework for visual social. In E. Margolis & L. Pauwels (Eds.), *The SAGE handbook of visual research methods* (pp. 3-23). SAGE.
- Schultz, B. (2001). Language and the natural environment. In A. Fill & P. Muhlhausler (Eds.), *Ecolinguistics reader: Language, ecology and environment*, (pp. 109-114). Bloomsbury Academic.
- Stibbe, A. (2015). *Ecolinguistics: Language, ecology and the stories we live by*. Routledge.
- Stibbe, A. (2019). Discovering the weatherworld: Combining ecolinguistics, ecocriticism, and lived experience. In S. Slovic, S. Rangarajan, & V. Sarveswaran (Eds.), *Routledge handbook of ecocriticism and environmental communication* (pp. 71-83). Routledge.
- Stibbe, A. (2020). Ecolinguistics and economics: The power of language to build worlds. *WEA Commentaries*, 10(3), 2-7.
- Van Dijk, T. A. (1983). Discourse analysis: Its development and application to the structure of news. *Journal of communication*, 33(2), 20-43.
- Walton, S., & Jaffe, A. (2011). “Stuff White People Like”: Stance, class, race, and internet commentary. In C. Thurlow & K. Mroczek (Eds.), *Digital discourse: Language in the new media* (pp. 198-219). Oxford University Press. <https://doi.org/10.1093/acprof:oso/9780199795437.003.0010>
- Wang, Y., & Feng, D. (2023). History, modernity, and city branding in China: A multimodal critical discourse analysis of Xi’an’s promotional videos on social media. *Social Semiotics*, 33(2), 402-425. <https://doi.org/10.1080/10350330.2020.1870405>
- Zhao, K. (2020). Erasure and whitewash: A critical analysis of two non-ecological rhetorical functions of environmental discourse. *Theoretical Studies in Literature and Art*, 40(3), 124-135. <https://tsla.researchcommons.org/journal/vol40/iss3/8>