# A Multimodal Discourse Analysis of Environmental News from China Daily

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*Abstract: Employing the visual grammar of MDA, the thesis tries to analyze the images of environmental news from China Daily and illustrate the construction of representational meaning and interactive meaning in the news images. Through analysis, the study is hoped to help readers explore the real intentions of image producers.*

*Keywords: Multimodal Discourse Analysis; Environmental News; Representational meaning; Interactive meaning*

## 1. Multimodal Discourse Analysis in China

Introduced by Li Zhan-zi in 2003[1], many scholars have studied MDA from different perspectives. Wang Gai-di and Yang Li-xue (2013)[2] stated that the poetry can be studied from the levels of culture, meaning and modality. Liang Bing and Jiang Ping (2015)[3] analyzed tourism discourse from the perspective of visual grammar. Che Xiao (2022)[4] applied MDA to English reading activities.

## 2. Theoretical Foundation

The visual design fulfills three meta-functions, namely representational function, interactive function and compositional function.

### 2.1 The Representational Meaning

The representational meaning shows that like language, the visual images can illustrate objects and the relationships within humans.[5] The representational meaning can be further divided into narrative representation and conceptual representation.

### 2.1.1 Narrative Representation

The narrative representation means that "when participants are connected by a vector, they are represented as doing something to or for each other."[5] According to Kress and Van Leeuwen, a vector is a diagonal line connecting participants and building relationships in the images.

The narrative representation is characterized by three processes, namely action process, reactional process, speech and mental process. As the process of doing something, the action process is characterized by the actor, vector and a goal. The action process could be regarded as a transactional process if there are two participants connected by the vector. Otherwise, the action process is non-transactional if there is only one participant. Different from the action process, the reactional process is featured by a vector formed by an eyeline. In the reactional process, the participants are reactors and phenomena. This process means that the reactor is observing the phenomenon.

### 2.1.2 Conceptual Representation

Visual images can be conceptual. According to Kress and Van Leeuwen, "visual structures of representation can be conceptual, representing participants in terms of their more generalized and more or less stable and timeless essences."[6] Without a vector, the conceptual representation can be further divided into classification structures, analytical structures and symbolic processes. In classification images, a group comprises several participants with the same size horizontally and vertically. The analytical process is characterized by the carrier and the possessive attributes. In other words, the analytical images represent the relationship between the whole and parts. "Symbolic processes are about what a participant means or is."[6]

### 2.2. Interactive Meaning

Two kinds of participants are involved in visual images, namely represented participants and interactive participants. The represented participants are the people, places and things illustrated in the images while the interactive participants are the producers and viewers of visual images. The interactive meaning is represented by four elements, namely contact, social distance, perspective and modality.

### 2.2.1 Contact

The contact is established when represented participants look at the viewer in the visual images. The vector connects the represented participants and the viewers. Besides, a gesture in the same direction can enhance the virtual interpersonal relationship. This kind of image is called a demand because the gaze of the represented participant demands something from the viewer. In the demand act, the producers use images and want the viewers to take some actions. Others images represent the relation as an offer when they provide information to the viewers. In these visual images, the represented participants don't look at the viewers directly or there are no humans or animal participants looking directly at the viewers.

### 2.2.2 Social Distance

Another dimension to the interactive meanings of images is the social distance which represent different relations between represented participants and viewers. It is determined by close, medium or long shot. The table 1 shows the social distance illustrated by different shots.[6]

*Table 1: The Relation of Size of Frame and Social Distance*

| Parts shown in images | Social distance |
| --- | --- |
| Head or shoulders | A close personal distance |
| From the knees up | A farther personal distance |
| The whole human figure with space around it | A far social distance |

### 2.2.3 Perspective

The perspective means the angel or point of view that illustrates the subjective attitudes of producers towards the participants in the images. The perspective can be further divided into horizontal and vertical perspective. The horizontal perspective consists of the frontal angle and the oblique angle. They reflect the relations of involvement and detachment.

Different from horizontal perspective, the vertical perspective represents the power relationship between the viewer and the represented participants in the images. There are three vertical angles, namely a high angle, a low angle and the eye level. A high angle makes the subject look small and insignificant. It means that the viewers have more power over the represented participants. A low angle shows more power from the participants in the images while the eye level represents a sense of equality.

## 3. Data Collection and Research Questions

China Daily is an important news source for readers home and abroad. The news reports of China Daily covers politics, economy, environment, etc. The news in the thesis was collected from the environment column and published from 2022 to 2023. The thesis attempts to help readers improve their ability to read images and explore the real intentions of image producers. Two questions are proposed:

(1) How are representational meaning and interactive meaning constructed in the news?

(2) What are the intentions of image producers?

## 4. Meaning Construction of Environmental News

In this part, selected environmental news images are analyzed to explore how to fulfill the representational and interactive meaning in the visual communication. The visual grammar is employed in the analysis to reveal the implied attitude of image producers.

### 4.1 Representational meaning constructed in news images

As mentioned before, representational meaning is illustrated by different processes. The table 2 is a distribution of each process in the news images.

*Table 2: Distribution of Each Sub-process*

| Process | Action process | Reactional process | Classification process | Analytical structure | Symbolic process |
|---|---|---|---|---|---|
| Number | 42 | 34 | 5 | 4 | 11 |

According to the table, the narrative process takes up a higher percentage (79%) than the conceptual process (21%). Within the narrative process, the action process accounts for 44% while the reactional process takes up 35%.

### 4.1.1 Action process

The action process is a process of doing something. It is characterized by the actor, vector and a goal. The action process could be further divided into transactional process and non-transactional process. Take figure 1 and figure 2 as examples.



*Figure 1: People clean up garbage*



*Figure 2: A woman shows a girl trash sorting rules*

In figure 2, the action process is characterized by the actor, vector and a goal. The actor is the woman who holds a book about garbage sorting. The vector is achieved by the pointing finger. The goal is the book. Aside from the action process, the first image is also characterized by reactional process in which the vector is the eyeline connecting the girl and the book. In this process, the girl is the reactor while the book is the phenomenon. This image shows that the concept of garbage sorting is deeply rooted in people's minds. Children start to develop the concept of garbage sorting and environmental protection from an early age.

In figure 1, there are three actors. Their tools are the vectors connecting the actors and the goals, namely the rubbish. There are similar processes in other images. In these images, humans are characterized as actors while the environmental elements such as animals, rubbish, trees are characterized as goals. The producers want to illustrate that humans have the capacity and determination to rescue the endangered animals or expand afforestation.

### 4.1.2 Reactional process

The reactional process is featured by a vector formed by an eyeline. In the reactional process, the participants are reactors and phenomena. Take figure 3 and 4 as examples.

*Figure 3: A female white-headed langur and her infant*



*Figure 4: A picture of a Tibetan antelope*

Like actions, reactional process can be transactional or non-transactional. The figure 4 is non-transactional because it is characterized by a reactor, the participant who does the looking. But figure 4 has no phenomenon. The look of the Tibetan antelope leaves the viewers to think and imagine. The figure 3 is transactional because it is presented by a reactor, the female white-headed langur and the phenomenon, her infant. The direction of the glance forms a vector from the mother to the baby and shows a love of mother and child.

There are similar processes in other images. In these images, the reactors are human or animals while the phenomena are environmental elements such as trees, hills, or infants. Sometimes there is no phenomenon in the images in which the animals, the reactors, seem to be calm and peaceful. These images can resonate with the viewers.

### 4.1.3 Symbolic process

Symbolic processes are about the implied meanings of a participant. The symbolic structure is characterized by a carrier and the symbolic attribute. The carrier is the participant whose meaning is established in the relation. The symbolic attribute is the participant which shows that meaning. Take figure 5 and 6 as examples.



*Figure 5: Recyclable resources and a green life*

*Figure 6: Renewable energies and a green life*

In figure 5, the signs such as the wind turbines, the hydroelectric power stations, batteries and the recyclable symbol are placed in the foreground and made salient. They are conventionally associated with symbolic values, namely a green life. The image 5 is also characterized by some other signs such as big smoky chimneys. These signs are carriers. The attribute is that emissions from factories pollute the environment and we should use recyclable resources to live a green life.

In figure 6, a wheel is painted with the earth and the other wheel is painted with some signs such as wind turbines, the hydroelectric power stations, trees and solar panels. Besides, the figure 6 is presented with a man riding the bike. The wheels and the man are carriers. The attribute is that humans can protect the planet and the environment by using renewable energies.

### 4.2 Interactive meaning constructed in the news

The interactive meaning of news images will be analyzed from the elements of contact, social distance and perspective.

### 4.2.1 Contact

The contact can be further divided into two categories: demand image and offer image. The table 3 illustrates the distribution of offer act and demand act of the selected images.

*Table 3: Distribution of Image Acts*

| Acts | demand | offer |
|---|---|---|
| number | 9 | 63 |

According to the table, the offer act takes up a higher percentage (87.5%) than the demand act (12.5%). The nature of environmental news accounts for the different numbers between demanding images and offering images. The nature of environmental news is to help readers have access to the latest news rather than making demands on readers. Take figure 7 and 8 as examples:



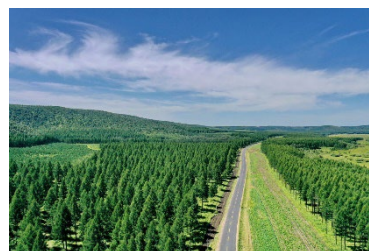*Figure 7: A picture of Tibetan antelopes*



*Figure 8: The scenery of a forest farm*

Figure 8 depicts the scenery of a forest farm in North China. In figure 8, there is no human or animal participant looking directly at the viewer. Instead, the forest farm is the represented participant and examined by the invisible viewers. The producer of the image wants to offer information to the viewer

and lead the viewers to contemplate.

In figure 7, the represented participants are a Tibetan antelope and her infant. The represented participants have no eye contact with the viewers. The participants in the mage are objects of the viewers' observation. The eyeline from the female antelope to the infant forms a vector. The focus of the vision reflects a relation of affinity between the mother and her infant.

Different from offer act, the demand act is characterized by the vector of eyeline between the represented participant and the viewer. Take figure 9 and 10 as examples.
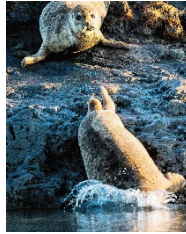


*Figure 9: A picture of spotted seals*



*Figure 10: A picture of wild sables*

In figure 9, the represented participant who looks at the viewer is a spotted seal. It looks directly at the viewer. The vector, formed by the eye contact, connects the participant and the viewer. Similarly, in figure 10, a wild sable stands up straight, looking directly at the viewer. Both participants gaze at the viewers and demand something from the viewers. With the eye contact, the animals observe the humans and stay at a safe distance. These images reflect that to protect wild animals, men need to keep a safe distance, reducing interference.

### 4.2.2 Social distance

An intimate relationship is reflected by a close shot of the head and shoulder. A familiar social relationship is reflected by a medium shot of the body area above the knee. An impersonal relationship is reflected by a long shot of the whole body.

The table 4 illustrates the distribution of social distances in news images

*Table 4: Distribution of Social Distance*

| Social distance | Close shot | Medium shot | Long shot |
|---|---|---|---|
| Number | 3 | 11 | 48 |

According to the table, the long shot takes up a higher percentage (77%) than the medium shot (18%) or the close shot (5%). The reason why the long shot is mostly used in news images lies in the objectivity of the news. By employing long shot, the readers can know more detailed information because the long shot includes more background information and illustrates what has happened impersonally. Take figures 11, 12 and 13 as examples.



*Figure 11: Visitors tour the Palace Museum*

*Figure 12: The willow catkins fly in the air*



*Figure 13: Wolf cubs were rescued*

The figure 13 is characterized by the head of a wolf cub, a milk bottle and the hand of a worker. It is taken by a close shot. Readers can see the head of the animal and its comfortable expression. At a close distance, the participants in the image are presented as if the viewers are involved in. The participants are depicted in a personal way and established an intimate relationship with the viewers.

Through close shots, the animals and humans are connected closely; thus, such images reflect the care and protection of wild animals.

In figure 12, three men were chatting in Beijing as willow catkins fly in the air. The viewers can clearly see the represented participants from the knees up, so it is a far personal distance by a medium shot. From the painful expression, viewers can be immersed and feel personally on the harm of pollen allergies. A medium shot is always employed in news to reveal some environmental problems. By highlighting the news topic, such images can increase our awareness of environmental protection.

In figure 11, some tourists are shown in long shot. They were represented impersonally that viewers can't distinguish their facial features. Long shots increase the distance between represented participants and the viewers. Besides, the long shot involves more background information in the news image. Therefore, the images taken by the long short is objective and impersonal. In these images, viewers are attracted by the human activities, the state of animals and other environmental elements as well. In image 13, the environmental elements were prominent. They include the Palace Museum, the blue sky and the pigeons. The news reveals that the air quality has improved.

### 4.2.3 Perspective

The perspective means the subjective attitudes of producers towards the participants in the images. The table 5 and table 6 illustrate the distribution of horizontal perspective and vertical perspective in news images.

*Table 5: Distribution of Horizontal Angle*

| Horizontal angle | Frontal angle | Oblique angle |
|---|---|---|
| Number | 52 | 4 |

*Table 6: Distribution of Vertical Angle*

| Vertical angle | High angle | Eye to eye | Low angle |
|---|---|---|---|
| Number | 13 | 58 | 1 |

According to the table, the frontal angle takes up a higher percentage (92%) than the oblique angle (8%). Besides, the angle of eye to eye occupies a percentage of 81%, much higher than high angle (18%)

or the low angle (1%). figures 14 and 15 are illustrated.



*Figure 14: Drought shrinks a lake*



*Figure 15: A man shares food with macaques*

The figure 15 is characterized by frontal angle because there is no angle between the participants and the viewer. The frontal angle means that the producer belongs to the world of represented participants. The image shows that it is a world where people and animals live in harmony. The figure 14 is characterized by both frontal angle and oblique angle. The persons walking across the bridge are depicted from an oblique angle. It means that the producer doesn't belong to their world. Instead, the cracked earth is shown from the frontal angle. In this way, the producer has aligned himself with the participants in the image. It means that the producer gives more emphasis to the threat of drought. The viewers are also invited into the world of participants and face the disaster directly.

Different from horizontal perspective, the vertical perspective reveals the power relationship. Take figure 16, 17, and 18 as examples.
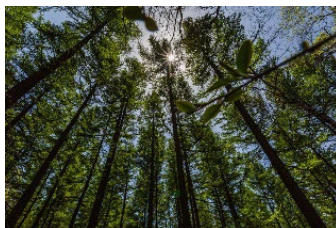


*Figure 16: A picture of Black-necked cranes*



*Figure 17: A picture of forest*



*Figure 18: Workers tend saplings*

In figure 18, the represented participants are planters and plenty of trees. The image is taken from a high angle. Overlooking the represented participants, the viewer can see the panorama of a growing forest. With a high angle, the producer and viewer have power over the participants in the image. The image suggests that humans have the responsibility and capacity to protect the environment. Different from figure 18, the figure 17 is characterized by a low angle which shows that the power of nature is stronger than humans. In figure 16, the represented participants are black-necked cranes. The image is taken from an eye to eye angle which suggests that the viewers and represented participants share the equal status and power. The image implies that man and wildlife should live in harmony.

## 5. Major findings

The thesis mainly discusses the construction of representational meaning and interactive meaning in the environmental news images. The study indicates that humans are part of nature. The man and nature are closely related. Activities of humans need to follow the laws of nature. it is the responsibility of every one of us to protect the earth and the environment. To protect wild animals, men need to keep a safe distance, reducing interference and respecting their natural habits. Man and nature should live in harmony.

## Acknowledgements

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