

# Thematic Analysis of Same–topic News Reports on Global Desertification in Chinese and German Mainstream Media

Yifei Shui<sup>1</sup>, Juan Dong<sup>2</sup>

<sup>1</sup> (School of Foreign Languages, University of Shanghai for Science and Technology, China)

<sup>2</sup> (Corresponding author, School of Foreign Languages, University of Shanghai for Science and Technology, China)

**ABSTRACT:** *This study focuses on the global desertification reports from China Central Television and Spiegel Online, and examines the differences in thematic progression patterns between Chinese and German mainstream media, as well as their effects on information presentation. The analysis shows that CCTV tends to use concrete entities as core themes and makes transitions according to event logic, while Spiegel Online often centers on abstract concepts and adopts more varied and flexible ways of shifting themes. In terms of information presentation, CCTV helps readers understand the content quickly, whereas Spiegel Online places greater demands on readers' depth of thinking. This study reveals the differences in language use and reader-guiding methods between Chinese and German media in reporting on this topic. It offers a new perspective for cross-cultural journalism and communication research, and also provides some reference for future studies.*

**KEYWORDS -** *Global Desertification, Thematic Progression, News Reports, Mainstream Media*

## I. INTRODUCTION

Desertification is one of the top ten environmental issues facing humanity. It directly threatens the global economy, social structure, and cultural development, making it a serious challenge that has drawn much attention and needs to be addressed urgently in today's global ecological context. Its effects are worldwide and not limited by geographical borders. As understanding of this global issue continues to grow, more and more countries and regions have responded and joined the fight against desertification. China and Germany are no exceptions. China has met the requirements of the United Nations Convention to Combat Desertification and achieved the zero-growth target ahead of schedule. Through projects such as the Three-North Shelter Forest Program, it has effectively slowed desertification and shared its experience

with countries along the Belt and Road Initiative (You *et al.*, 2021). Germany has also actively called for changes in land use practices at the 16th session of the United Nations Conference to Combat Desertification.

In both China and Germany, media centralism has a clear influence on desertification reporting. German media use information sharing and agenda-setting to raise public awareness of desertification, support policy development and social action, while also highlighting the importance of global perspectives and technological innovation. In both countries, the media play an irreplaceable role in promoting policy implementation and overseeing environmental governance. Through information sharing, agenda-setting, and environmental discussion, the media in China and Germany help increase public environmental awareness, encourage broad public participation in environmental protection, and build support for policies.

This study takes two news articles as case studies: “全球荒漠化防治提供‘中国方案’——中国第七大沙漠崛起‘光伏长城’” (local.cctv.com, Nov 28, 2024) and “Wüsten dehnen sich weltweit aus: Wir stehen am Abgrund und müssen entscheiden, ob wir etwas tun wollen” (www.tagesspiegel.de, Dec 2, 2024). By comparing the differences in thematic progression patterns and information presentation effects between Chinese and German mainstream media, this study aims to gain a deeper understanding of how news is expressed in different language and cultural settings. The findings of this study may support cross-cultural communication, help journalists and media workers carry out cross-cultural translation and reporting more effectively, reduce cultural misunderstandings, improve the quality of news reports, and strengthen mutual understanding and trust between China and Germany.

## II. THEMATIC PROGRESSION PATTERNS

The concepts of theme and rheme mainly stem from the theories of the Prague School in functional linguistics and Halliday's Systemic Functional Linguistics. Theme is the element that serves as “the point of departure of the message” and that “locates and orients the clause within its context” (Halliday & Matthiessen, 2014: 89). Rheme refers to what is said about the theme, representing the new information and the expansion of the discourse information.

A discourse is a whole made up of spoken or written language of any length. It is a semantic unit, while a clause is a lexicogrammatical unit. A discourse is not composed of clauses but is realized through them (Halliday & Hasan, 1976/2001). When a discourse contains several clauses, there are multiple themes and rhemes, which interact and change over time. These connections and changes are called progression. As the themes of each sentence move forward, the whole discourse gradually unfolds until it forms a complete unit that can convey a full meaning. Discourses differ in form, including differences in themes, topics, length, genre, and difficulty. Although the choice of themes may seem flexible, it is actually shaped by several factors. These patterns are known as patterns of thematic progression. Thematic progression, proposed by Daneš (1974), is used to trace the semantic links between the Theme and Rheme of one clause and those of other clauses in a text. Daneš (1974) examined three types of thematic progression in written

texts: constant, linear, and derived patterns. Dubois (1987) identified two additional patterns: multiple and gapped developments. The classification of thematic progression patterns has been further developed by many other researchers (Martin, 1992; Hu, Zhu and Zhang, 1989; Fries, 2002; Eggins, 2004; Thompson, 2014; Akinseye, 2020; Wang, 2021). There is broad agreement that using only one thematic progression pattern is not enough for effective discourse organization. Instead, different patterns can be used together in various combinations. Based on the studies mentioned above, this study identifies six thematic progression patterns, as shown in Table 1.

Table 1 Typical Thematic Progression Patterns

Pattern	Structural Formula	Discourse Function
Same-Theme Pattern	$T_1 = T_2 = T_3 \dots$	Describing multiple aspects of
Same-Rheme Pattern	$T_1, T_2, T_3 \dots$ different $R_1 = R_2 = R_3 \dots$	Emphasizing a common feature shared by different subjects
Linear Continuation Pattern	$T_1 \rightarrow R_1$ $T_2 (=R_1) \rightarrow R_2$	Advancing narration or argument step by step
Cross-Reference Pattern	$T_1 \rightarrow R_1$	Expressing mutual, reciprocal,
Theme-Derivation Type	Hyper-theme $\rightarrow T_1, T_2, T_3 \dots$ (each with its own rheme)	Organizing a general-specific or topic-subtopic structure
Split-Rheme Type	$T_1 \rightarrow R_1 = \{A, B, C \dots\}$ $T_2 (=A) \rightarrow R_2$ $T_3 (=B) \rightarrow R_3 \dots$	Detailing each component of a complex rheme separately

### 1) The Same-Theme Pattern

In this pattern, all clauses or sentences within a discourse segment share an identical theme, while each presents a different rheme. The theme serves as the consistent point of departure for successive utterances, allowing the speaker or writer to add multiple pieces of new information about the same topic. This pattern is particularly effective in descriptive or expository texts where a single entity is characterized from various perspectives.

For instance: *'The Amazon rainforest produces approximately 20% of the world's oxygen. It spans across nine different countries in South America. It harbors an estimated 400 billion individual trees belonging to 16,000 species.'* In this three-sentence sequence, the theme of all three sentences is *the Amazon rainforest* (with "It" as a substitute). Each sentence provides different new information: oxygen output, geographical range, and biodiversity data. By keeping the theme constant, the text builds a detailed picture of the same topic without shifting focus. This pattern ensures thematic continuity while allowing the information to

expand.

## 2) The Same-Rheme Pattern

The same-rheme pattern is characterized by a constant rheme that is predicated of varying themes; different topics are introduced in sequence, but each is linked to an identical or nearly identical comment. This structure is often employed to highlight a shared property, condition, or evaluation across several entities, thereby reinforcing a general claim or drawing an analogy.

For example: *'Regular exercise improves cardiovascular health. A balanced diet improves cardiovascular health. Adequate sleep also improves cardiovascular health.'* In this sequence, the themes are entirely different: *Regular exercise*, *A balanced diet*, and *Adequate sleep*. However, the rheme of all three sentences is identical: *improves cardiovascular health*. By holding the rheme constant while varying the theme, the pattern foregrounds a shared property across multiple disparate subjects. The discourse thereby reinforces the conclusion that diverse factors converge on the same beneficial outcome, making this pattern particularly effective for generalization and analogical argumentation.

## 3) The Linear Continuation Pattern

The linear continuation pattern, also known as the linear theme-rheme progression, operates on the principle that the rheme of one clause becomes the theme of the subsequent clause. This creates a chain-like information flow in which each sentence picks up a previously introduced element as its point of departure and then adds new information, which in turn serves as the starting point for the next sentence. This pattern is fundamental to narrative and logical argumentation, because it mirrors the progression of thought or event sequences.

For example: *'He picked up an old letter. The letter was written in faded ink. The ink seemed to be from a 19th-century fountain pen.'* In this instance, the rheme of the first sentence (*an old letter*) is taken up as the theme (*the letter*) of the second sentence. The rheme of the second sentence (*faded ink*) then becomes the theme (*the ink*) of the third sentence. Each utterance builds directly on the informational endpoint of the previous one, producing a coherent and easily traceable development of the discourse.

## 4) The Cross-Reference Pattern

The cross-reference pattern involves an interlocking relationship between the themes and rhemes of two successive sentences. Specifically, the theme of the second sentence equals the rheme of the first, and the rheme of the second equals the theme of the first. This structure is typically used to express mutual actions, symmetrical relations, or reversible processes, such as exchange, comparison, or contrast between two participants or entities.

For instance: *'The professor submitted the manuscript to the journal editor. The editor then returned the manuscript to the professor with revision requests.'* This two-sentence sequence exhibits a reciprocal thematic structure. In the first sentence, the theme is *'the professor'* and the rheme is *'the journal editor'*. In the second sentence, the theme becomes *'the editor'* which corresponds to the rheme of the first sentence, and the rheme becomes *'the manuscript to the professor'* in which the professor reinstates the theme of the first sentence as part of the rheme. This arrangement captures the interactive nature of the

exchange: the professor initiates the submission, and the editor responds by returning a revised version. The pattern captures a cyclical process between two participants without needing additional explanation.

#### 5) The Theme-Derivation Type

The theme-derivation type operates on a hierarchical rather than linear basis. A superordinate theme is introduced at the beginning of a discourse unit (typically a paragraph or a section). This theme then serves as a conceptual umbrella from which several subordinate themes are derived, each subsequently developed with its own rheme. This pattern is particularly suited for classification, enumeration, or any discourse structure that follows a general-to-specific organization.

An example is: *‘Three structural weaknesses led to the bridge’s collapse. Insufficient load-bearing capacity caused gradual deformation under heavy traffic. Corrosion of the main cables accelerated after decades of saltwater exposure. Poorly designed expansion joints failed to accommodate thermal stress.’* In this instance, the first sentence gives a general claim (three weaknesses caused the collapse). The next three sentences each take one weakness as their theme and explain how it contributed. This structure allows the writer to first state a general point and then break it down clearly, making it useful for classification and analysis.

#### 6) The Split-Rheme Type

The split-rheme pattern is employed when the rheme of an initial sentence contains multiple distinct elements, typically presented as a list or a set. Each subsequent sentence then takes one of these elements as its own theme and develops it with a new, specific rheme. This pattern allows the writer or speaker to unpack a complex or compound rheme by treating each component separately, thereby providing detailed elaboration on each item introduced in the initial statement.

For instance: *‘There are three leftovers in the refrigerator: some fried rice, a piece of cheesecake, and half a roasted chicken. The fried rice can be reheated for tomorrow’s lunch. The piece of cheesecake will serve as dessert after dinner. The half a roasted chicken is enough for a quick sandwich.’* In this four-sentence sequence, in the first sentence, the rheme lists three items: *fried rice*, *cheesecake*, and *half a roasted chicken*. In each of the next three sentences, one of these items becomes the theme. The second sentence takes *‘the fried rice’* as its theme, with the rheme stating it can be reheated for lunch. The third sentence takes *‘the piece of cheesecake’* as its theme, with the rheme presenting it as dessert. The fourth sentence takes *‘the half a roasted chicken’* as its theme, with the rheme saying it is enough for a sandwich. This structure moves from a general list to a detailed item-by-item description, giving each item focused attention while keeping the text coherent.

In building discourse cohesion, thematic progression is an essential tool. Because the theme appears at the beginning of the sentence, it naturally serves to connect what comes before and after, acting as a key link in maintaining discourse coherence. As the starting point for speakers to construct a sentence, the theme has a significant influence on the development of the rheme and on the overall structure of the sentence. It largely determines how information is organized and how the sentence flows logically, thereby affecting the structural completeness and semantic coherence of the entire discourse.

### III. NEWS REPORTS ANALYSIS

#### 3.1 Distribution of thematic progression patterns

This study conducted a clause-by-clause analysis and statistical count of thematic progression patterns on the two news reports on the same topic from Chinese and German media. The results are shown in Table 2.

Table 2 Comparative Thematic Progression Pattern Distributions

Thematic Progression	CCTV News (%)	Spiegel Online News (%)	Difference
Same-Theme Pattern	25%	33%	-8%
Theme-Derivation Pattern	24%	17%	+7%
Linear Progression Pattern	11%	10%	+1%
Cross-reference Pattern	9%	12%	-3%
Same-Rheme Pattern	9%	16%	-7%
Split-Rheme Pattern	22%	—	—

As shown in the data from CCTV News, the six types of thematic progression patterns appear at different rates. The Theme-Identity Pattern has the highest share at 25%, followed closely by the Theme-Derivation Pattern at 24% and the Split-Rheme Pattern at 22%. Together, these three patterns make up 71% of all thematic progressions found in the CCTV news texts. This shows a clear preference for discourse strategies that keep the same theme or derive related themes from a main one. In contrast, the Linear Progression Pattern appears much less often at 11%, while both the Cross-reference Pattern and the Rheme-Identity Pattern occur least frequently, each at 9%. This distribution suggests that CCTV news relies more on theme-based cohesive devices than on rheme-based or linearly linked structures.

The data from Spiegel Online News shows a somewhat different distribution. The Theme-Identity Pattern is the most common type, making up 33% of all cases, which is much higher than any other pattern. The Theme-Derivation Pattern follows at 17%, and the Rheme-Identity Pattern accounts for 16%. The Cross-reference Pattern and the Linear Progression Pattern represent 12% and 10% of the distribution, respectively. Notably, the Split-Rheme Pattern does not appear in this dataset, suggesting that either the analyzed Spiegel texts do not use this pattern or it was grouped under a different category. Overall, the three most frequent patterns (Theme-Identity, Theme-Derivation, and Rheme-Identity) together make up 66% of all progressions. This shows a clear preference for thematic stability and derivational organization over linear chaining or cross-referential structures.

A comparison between CCTV News and Spiegel Online News shows both similarities and differences in pattern distribution. The Theme-Identity Pattern ranks as the most frequent in both outlets, though its share is higher in Spiegel Online News (33%) than in CCTV News (25%). The Theme-Derivation Pattern ranks second in both, but with a higher percentage in CCTV News (24%) than in Spiegel Online News (17%). The biggest difference lies in the Split-Rheme Pattern, which makes up 22% of progressions in CCTV News but does not appear in Spiegel Online News. In contrast, the Rheme-Identity Pattern appears nearly

twice as often in Spiegel Online News (16%) as in CCTV News (9%). The Cross-reference Pattern and Linear Progression Pattern show similar frequencies across the two sources, with differences of 3% or less. These differences may reflect real contrasts in the writing styles or genre norms of Chinese and German online news media, or they may result from different analytical choices made by the researchers.

### 3.2 Instance Analysis

Below are typical examples selected from the two Chinese and German news reports, with a detailed analysis of how thematic progression unfolds. T stands for theme, and R stands for rheme.

Example1 光伏长城 (T1) 在沙漠中展现出巨大的规模 (R1), 光伏长城 (T2) 为周边地区带来了清洁能源 (R2), 光伏长城 (T3) 还促进了当地的经济的发展 (R3)。

In the part describing the construction achievements and significance of the ‘光伏长城,’ the themes T1, T2, and T3 all refer to the ‘光伏长城,’ while the rhemes address different aspects, including scale, energy, and economic development. These three clauses thus follow the same-theme pattern. Through this pattern, readers’ attention stays on the ‘光伏长城,’ helping them see its positive role and important value in desertification prevention and control. At the same time, this pattern also helps build an information network around this central topic, allowing readers to clearly understand how different pieces of information about the ‘光伏长城’ relate to each other and work together in the fight against desertification.

Example2 施工团队 (T1) 首先进行了场地勘察 (R1), 场地勘察 (T2) 的结果为后续的设计 (R2) 提供了依据, 后续的设计方案 (T3) 确定了光伏板的布局 (R3), 光伏板的布局 (T4) 影响着发电效率 (R4)。

In these four clauses, the rheme (R1) of the first clause, namely ‘场地勘察,’ becomes the theme (T2) of the next clause. The rhemes of the following clauses, R2 and R3, continue in the same way. This linear continuation pattern allows the text to present more clearly the time order and logical chain of events, which helps improve the readability and coherence of the text. At the same time, it also enables readers to follow the connection between themes and rhemes to gradually understand how the whole construction process of the ‘光伏长城’ moves forward step by step, as well as the role and importance of each step in the overall process.

Example 3 Die Wüstenausdehnung (T1) zerstört die natürlichen Ökosysteme (R1). Die Bevölkerungsverdichtung (T2) in den Städten gefährdet ebenfalls die natürlichen Ökosysteme(R2). Die industrielle Umweltverschmutzung (T3) hat ebenfalls negative Auswirkungen auf die natürlichen Ökosysteme (R3).

The themes are ‘Die Wüstenausdehnung’, ‘Die Bevölkerungsverdichtung in den Städten’, and ‘Die industrielle Umweltverschmutzung’, while the rhemes all focus on the impacts on the ecosystem. These three clauses thus follow the same-rheme pattern. The use of this pattern in these three clauses highlights the common threats that different factors pose to the natural ecosystem. Meanwhile, it also shows the severity of the desertification issue in terms of ecological damage, as well as how other human-related factors are linked to the impact on the ecosystem, which may guide readers to understand, from the core

rheme of the threatened ecosystem, the internal connections between the factors represented by different themes and the desertification issue.

Example 4 Die Lösung der Wüstenproblematik (T1) erfordert globale Zusammenarbeit (R1). Die Politikgestaltung (T2) in der globalen Zusammenarbeit muss auf die Langfristigkeit ausgerichtet (R2) sein. Die finanziellen Unterstützungen (T3) in der globalen Zusammenarbeit sollten verstärkt (R3) werden.

In the first clause, ‘Die Lösung der Wüstenproblematik’ serves as the theme. ‘Die Politikgestaltung in der globalen Zusammenarbeit’ and ‘Die finanziellen Unterstützungen in der globalen Zusammenarbeit,’ which are the themes of the other clauses, are both derived from T1 and involve different measures to address desert issues. These three clauses therefore follow the theme-derivation pattern. This pattern helps improve the logical flow and organization of the text when explaining solutions to complex problems. In this case, it allows readers to systematically understand that dealing with desertification requires multiple measures, including policy and financial support. It moves gradually from a broad solution to more specific implementation points, building a fairly complete and well-organized cognitive framework for coping strategies.

For CCTV, its preference for concrete entities or actors in thematic selection aligns with the goal of efficient information dissemination, a common feature of Chinese media’s practice in serving a large audience base. According to Lu (2018), Chinese mainstream media tend to adopt straightforward communication strategies to reach the public quickly. By following intuitive logic, such as the order of events or cause-and-effect relationships, they simplify complex information. When presenting the ‘光伏长城,’ this linear logic reflects the audience’s general way of thinking, making it easier for them to understand quickly. In a fast-paced media environment, this approach maximizes the speed of information uptake, which is important for engaging a large readership that expects clear and simple news.

In contrast, Spiegel Online’s use of abstract concepts and phenomena in thematic selection reflects the German media’s tendency toward in-depth analysis. German media often take on the role of public educators, exploring issues in depth. Themes like ‘Die Wüstenausdehnung’ serve as starting points for comprehensive discussions. Their multi-dimensional transition logic, from phenomena to causes or from actions to consequences, encourages readers to think critically. This style is shaped by a media culture that values intellectual engagement, aiming to promote public discussion on environmental issues through thought-provoking content, rather than simply passing along facts.

Overall, these differences in how themes are handled are deeply rooted in the media cultures of China and Germany. They are shaped by the distinct communication goals that exist under each country’s media system.

#### IV. CONCLUSION

This study takes the reports on global desertification from CCTV and Spiegel Online as examples and analyzes the differences between Chinese and German media in thematic progression patterns and information presentation effects. In terms of thematic progression patterns, CCTV often uses concrete

entities as core themes and shifts themes according to event logic, while Spiegel Online frequently uses abstract concepts as core themes and adopts more varied and flexible ways of shifting themes. Regarding information presentation effects, CCTV focuses on specific topics for in-depth discussion and orderly delivery, making it easier for readers to understand. Spiegel Online, on the other hand, first presents the different sides of the problem and then narrows down to the solutions, which requires a higher level of thinking from readers. These differences reflect how Chinese and German media differ in their use of language and in guiding readers' understanding when reporting on desertification. This study offers a new perspective for cross-cultural journalism and communication research.

This study is limited by its small sample of only two news reports. Although both are from mainstream media and offer some representativeness, they cannot capture all features and patterns of desertification reporting in Chinese and German media. Moreover, this paper only provides a preliminary discussion of the link between thematic progression patterns and news communication effects, without empirical support. Future research could include more media outlets and different types of reports to better explore the diversity and commonality of these patterns. It could also examine how thematic progression patterns relate to cultural and social backgrounds, identify the underlying reasons, and build a stronger theoretical basis for cross-cultural communication.

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