

PATTERNS OF COHERENCE AND INFORMATION FLOW IN THE 'SYLVESTER AND THE MAGIC PEBBLE' CHILDREN'S BOOK

PADRÕES DE COERÊNCIA E FLUXO DE INFORMAÇÃO NO LIVRO INFANTIL 'SILVESTRE E A PEDRA MÁGICA'

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frequently used. The predictive function between different hierarchical themes makes the cohesion and coherence more natural and concise. Besides helping writers create better picture books with effective coherence, the theories of thematic structure and information flow help children grasp the important information of the story and build their emotions.

Keywords: Thematic structure. information flow. Textual coherence. Systemic functional linguistics. Children's picture books.

Resumo: Como os conceitos importantes na Linguística Funcional Sistêmica, tema e rema formam a estrutura temática. As conexões entre temas e remas das sentenças anteriores e os das últimas sentenças constituem padrões de progressão temática. Tanto as relações entre as estruturas temáticas quanto os vários padrões de progressão temática ajudam a construir um significado coerente em um texto. Com base na teoria da estrutura temática de Halliday e na teoria do fluxo de informação de Martin, este estudo investiga a função de macrotemas, hipertemas e temas na construção da coerência textual no livro infantil ilustrado "Sylvester and the Magic Pebble". Os

temas e remas são identificados em cada frase deste livro infantil ilustrado, ao mesmo tempo que se calculam e analisam a percentagem e utilização de diferentes tipos de temas e padrões de progressão temática. O resultado mostra que a proporção de tema simples é de 68,1%. Os temas simples são principalmente assumidos por substantivos e sintagmas nominais. A coerência textual também é realizada por outras formas de laços coesivos, por exemplo, referência, substituição e coesão lexical. Os achados também mostram que existem quatro padrões de progressão adotados no livro infantil ilustrado, no entanto, os padrões de progressão paralela e contínua são os mais usados. A função preditiva entre diferentes temas hierárquicos torna a coesão e a coerência mais naturais e concisas. Além de ajudar os escritores a criar melhores livros ilustrados com coerência efetiva, as teorias da estrutura temática e do fluxo de informações ajudam as crianças a compreender as informações importantes da história e a construir suas emoções.

Palavras-chave: Estrutura temática. Fluxo de informação. Coerência textual. Linguística funcional sistêmica. Livros infantis ilustrados.

Introduction

As early as in 1900s, Saussure regards language as a “social fact” and a type of human phenomena. Language, as a symbol system, is used by human beings for social communication. Following the notion of discourse analysis proposed by Zellig Harris in 1952 and guided by many new disciplines such as social semiotics, psychology, sociology in the coming decades, more and more researchers have tended to apply Saussure’s semiology theory to discourse analysis. Halliday (1978, 1985) puts forward that language is part of the social semiotic and serves as a shared meaning potential. Halliday (1978) further classifies three metafunctions of language, which include ideational metafunction, interpersonal metafunction and textual metafunction. It is important to note that the focus of this study is on the textual metafunction, since this metafunction enables researchers to analyze information distribution and organization, which offers useful theoretical implications to researches on coherence. Martin (1992) puts forward a hierarchical method of thematic development of discourse. There are three sub-systems within the textual metafunction, which involve thematic structure, informational structure and cohesion. As one of the mechanisms to construct discourse, thematic structure links up the topics of individual sentences. Therefore, larger topics at different levels can be formulated linearly and hierarchically to form the overall topic of the discourse in the end. The deliberately selected themes not only connect sentences semantically, but also organize the whole discourse coherently through different thematic progression patterns. Hence, the studies of the cohesive functions of various themes and their thematic progression patterns are conducive to reveal the methods in which coherence is constructed in a discourse (Fan Li, 2022).

As a highly aesthetic genre, children's picture books have been widely acknowledged as the most appropriate reading material for children in many countries, such as the United States, European countries, Japan, Korea and China. Children's picture books tell a story and construct meaning through the interaction between pictures and words. By providing a map of possible roles and possible worlds, children's picture books invite readers to experience literal realities in the world and pave the way for children's development of language ability, aesthetic judgment, cultural imagination and so forth. The 20th century has witnessed a prosperity in the research interest in children's picture books. The common perspectives are interrelationship between image and text, printed modal and type setting, construction of interpersonal meaning, textual cohesion and coherence, visual narratives, multimodal metaphor, and metaphorical iconicity, et cetera. The current study on the nature of coherence of children's picture books from the perspective of thematic progression is under presented. In this study, children's picture book "Sylvester and the Magic Pebble" is selected, under the guidance of the theory of thematic structure, thematic progression patterns and information flow, to investigate how themes and thematic progression patterns contribute to the coherence construction on the linguistic level.

1. Data source

The children's picture book "Sylvester and the Magic Pebble" is the winner of the Caldecott prize, which is awarded each year to the most popular and distinguished children's picture books in the previous year since 1937. "Sylvester and the Magic Pebble" tells a story that is beautifully tender and full of magic. On a rainy day, a little donkey, named Sylvester, found a remarkable pebble that can make his wishes a reality. But on his way home, he met a fierce hungry lion. Sylvester was too frightened and made a wish to turn himself into a pebble, lying alone in the wilderness. Eventually, Sylvester reunited with his beloved family and restored to his true self. This is also the most touching part of the story. With delicate words and vivid illustrations, this picture book provides children with experience of being trapped and getting out of trouble. Being a modern classic beloved by children everywhere, it induces more people to cherish the unbreakable love between parents and children by inviting them to ponder the meaning of separation. This children's picture book integrates words and pictures ingeniously with a full consideration of the

development of children. Its popularity and social salience as a typical genre further guarantee the reliability and representativeness of the coherence study.

This study intends to find out the particular way of textual coherence in children's picture book "Sylvester and the Magic Pebble". The information structure of the children's picture book will be explored, with the aim of demonstrating how it constructs meaning of the story and better promotes children to understand the story and create emotional connections. The analysis of coherence construction in children's picture books from the perspective of thematic progression is significant from both theoretical and practical aspects. Theoretically, this current study can justify the adaptability of the theory of thematic structure and information flow, and offer a new way of thinking to investigate coherence in children's picture books. Practically, the textual semantic relations in children's picture books not only help to build the coherent storyline, but also help children comprehend the important information and establish their emotions.

2. Analytical frameworks

Textual meta-function on Halliday (1978) proposes the theory of development to analyze information distribution and organization, which offers useful theoretical implications to researches on coherence. According to Halliday (1978), thematic structure consists of two parts: theme and rheme. theme is the starting point of information and the topic that the discourse revolves around. Rheme develops the theme and interprets it in a more detailed way. The analysis of theme and rheme stays at the clause level. Martin (1992) extends the theme selection into different levels of a discourse, and classifies them as macro-themes, hyper-themes and clause themes. Martin (2003) develops the theory of information structure by shifting the focus from clause to text. Martin (2007) proposes an important characteristic of texture, that is the information of a text flows from macro-theme to macro-rheme, from hyper-theme to hyper-rheme, and in the end, from theme to rheme. The different levels of theme-rheme structure and their predictive patterns of interaction help much to build the text coherently. When a discourse contains multiple sentences, some sorts of connections and changes will be formed between theme and theme, between theme and rheme, also between rheme and rheme. These delicate relations can be called the thematic progression. The thematic progressions develop a discourse forward until a certain complete meaning is conveyed. Based on the studies conducted by

Chinese scholars Zhu Yongsheng (1995) and Huang Guowen (1988), there are six common thematic progression patterns due to the characteristic of discourses, namely parallel progression pattern, focused progression pattern, continuous progression pattern, alternative progression pattern, derived rheme progression pattern, and coordinate progression pattern. Instead of progressing in only one pattern, most of the discourses combine several progression patterns to express a complete and coherent meaning (Cao Jin, 2021).

The information structure of children’s picture books will help constructs meaning of the story and better promotes children to understand the story and create emotional connections. This study, taking inspiration from Halliday’s theory of thematic structure, thematic progression patterns proposed by Zhu Yongsheng and Huang Guowen, and Martin’s theory of information flow, intends to figure out the construction of global coherence in children’s picture book “Sylvester and the Magic Pebble”. The proposed working framework of this study is put forward in Figure 1.

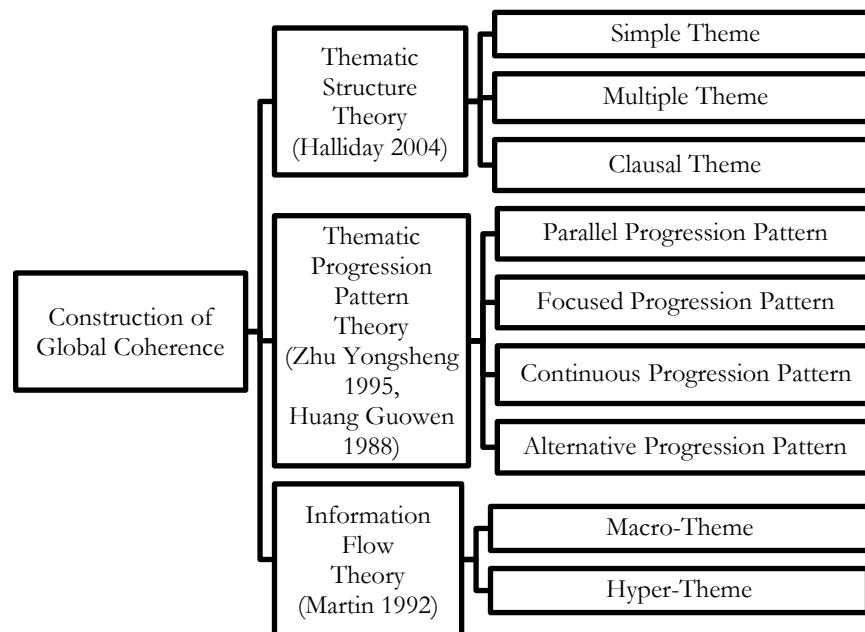


Figure 1: The proposed analytical framework for construction of textual coherence

This study mainly adopts the document analysis. First, the number and percentage of different kinds of themes and different types of thematic progression patterns in the children’s picture book are counted and calculated. Then, this study explored the ways that

themes and thematic progression patterns advance coherence of the children's picture book.

3. Theme and coherence in the children's picture book

The total number and percentage of the three types of themes in the children's picture book "Sylvester and the Magic Pebble" are counted and calculated. The result is presented in Table 1.

Table 1: Distribution of Themes in the Children's Picture Book "Sylvester and the Magic Pebble"

	Simple Theme	Multiple Theme	Clausal Theme
Total number	109	43	8
Percentage	68.1%	26.9%	5.0%

Different from cohesion, which is non-structural and a semantic phenomenon, theme occurs at the clausal level and plays a role in predicting the relevant message in its textual environment (Cloran 1995: 401). Therefore, theme promotes the construction of discourse coherence. Since cohesive ties are usually used to achieve discourse coherence, theme also realizes the discourse coherence with the help of cohesive ties.

4.1 Simple theme in coherence construction of the children's picture book

As shown in Table 1, the percentage of simple themes used in the children's picture book is as high as 68.1%. The use of simple themes can lower the difficulties of reading and help children comprehend the story easily. In addition, most of the simple themes in the children's picture book are nouns, noun phrases and pronouns. Hence, the common cohesive ties between the simple themes are reference, substitution and lexical cohesion.

Reference occurs when one element in a discourse needs to be interpreted by referring to another element in the same discourse. When a referential element emerges in a thematic structure, readers need to locate the referred object from the context of the discourse as shown in Extract 1.

Extract 1

Sylvester Duncan (T) lived with his mother and father at Acorn Road in Oatsdale (R). One of his hobbies (T) was collecting pebbles of unusual shape and color (R).

Theme	Rheme
Sylvester Duncan (Ta1)	lived with his mother and father at Acorn Road in Oatsdale.
One of his hobbies (Ta2)	was collecting pebbles of unusual shape and color.

The two themes in the two sentences in Extract 1 are simple themes. The component “his” in the second theme “One of his hobbies” refers to the component “Sylvester Duncan” in the first theme. The cohesive relation between the two sentences is formed through identifying the referential relationships in the simple themes.

Substitution refers to the cohesive relation that replacing one element in the above discourse with a short list of substitutes. The substitutes and substituted elements share the same structural function and can be replaced without changing the meaning of the discourse. Substitution is also regarded as an important rhetoric device to avoid duplication.

Extract 2

They (T) talked to all the children -- the puppies, the kittens, the colts, the piglets (R). No one (T) had seen Sylvester since the day before yesterday (R).

Theme	Rheme
They	talked to all the children -- the puppies, the kittens, the colts, the piglets.
No one	had seen Sylvester since the day before yesterday.

In the second sentence of Extract 2, the simple theme “one” substitutes one part of the rheme “all the children” in the previous sentence. It seems that readers are going through the searching process, but still fail to find Sylvester.

Hoey (1991: 26) states that, compared with grammatical relations, lexical relations are most likely to determine cohesion and create the texture of a discourse. Lexical cohesion can systematically reflect the semantic relations among sentences of a discourse. In a discourse, lexical cohesion among themes of adjacent clauses is usually used to keep coherence or reflect the ideas of the author. Lexical cohesion is realized by relating several lexical items with each other to establish a cohesive chain within the discourse. Moreover, from the communicative perspective, lexical cohesion can also be used to emphasize a particular information and improve the efficiency of understanding.

Extract 3

The earth (T) warmed up in the spring sun and things budded (R). Leaves (T) were on the trees again (R). Flowers (T) showed their young faces (R).

Theme	Rheme
The earth	warmed up in the spring sun and things budded.
Leaves	were on the trees again.
Flowers	showed their young faces

The first theme in Extract 3 is a simple theme. The other two simple themes in the following two sentences, namely “leaves” and “flowers” demonstrate a part-whole

semantic relation with the first simple theme “the earth”. At the same time, the writer also gives detailed information about “what spring looks like” to meet the expectations of children.

4.2 Multiple themes in coherence construction of the children’s picture book

According to Table 1, the multiple theme accounts for 26.9% of the total number of themes. Since multiple themes are made up of more than one component that reflects more than ideational meaning, it plays a multi-dimensional cohesive role in creating discourse cohesion and coherence. Having realized that ideational constituents have the similar cohesive function to simple theme as discussed in section 4.1, coherence construction of interpersonal theme and textual theme are therefore discussed in the following sections.

4.2.1 Interpersonal theme and coherence

Interpersonal components in multiple themes contain modal adjuncts, vocative elements, and finite verbal operators (Halliday 2004: 82). In the children’s picture book, only the modal adjuncts are used to simulate communication in real life, this is to enable readers to participate in the story and understand feeling, attitude and judgment among the characters.

Extract 4

“I (T) wish it would stop raining,” he said (R). To his great surprise the rain (T) stopped (R).

Theme	Rheme
“I	wish it would stop raining,” he said.
To his great surprise the rain	stopped.

In Extract 4, multiple themes in the second sentence consists of modal adjunct “to his great surprise” and topical theme “the rain”. In the first sentence, Sylvester makes an impossible wish, which comes true in the second sentence. Therefore, interpersonal theme “to his great surprise” expresses the feeling of Sylvester properly and connects these adjacent sentences naturally.

Extract 5

He (T) could hardly wait to see their faces (R). Maybe they (T) wouldn’t even believe him at first (R).

Theme	Rheme
He	could hardly wait to see their faces
Maybe they	wouldn’t even believe him at first.

The interpersonal Theme “maybe” of the second sentence in Extract 5 is also a modal adjunct, which shows the probability that Sylvester’s family would believe him. The low probability represented by “maybe” strengthens the eagerness of both Sylvester and the reader to know the reaction of Sylvester’s family.

4.2.2 Textual theme and coherence

Textual theme can achieve a cohesive relation between adjacent sentences. The textual components used in multiple themes to represent textual meta-function include conjunctive theme, structural theme and continuative theme. These three types of textual components may combine to form multiple themes (Halliday 1985: 54).

Extract 6

He (T) imagined all the possibilities (R), and eventually he (T) realized that his only chance of becoming himself again was for someone to find the red pebble and to wish that the rock next to it would be a donkey (R).

Theme	Rheme
He	imagined all the possibilities,
and eventually he	realized that his only chance of becoming himself again was for someone to find the red pebble and to wish that the rock next to it would be a donkey.

In Extract 6, the multiple themes consist of structural theme “and”, conjunctive theme “eventually”, and topical theme “he”. As a conjunction, the structural component “and” usually combine with other components to focus readers’ attention to the following information. The conjunctive theme “eventually” connects the two sentences with a temporal relation.

Extract 7

He (T) could have wished many things (R), but he (T) panicked and couldn’t think carefully (R).

Theme	Rheme
He	could have wished many things,
but he	panicked and couldn’t think carefully.

In Extract 7, structural theme “but” appears at the second clause to express the adversative logical meaning, indicating that there must be something different from the previous clause. Here, “but” depicts that Sylvester is frightened and something bad may happen immediately.

Extract 8

The days (T) grew colder (R). Fall (T) came with the leaves changing color (R). Then the leaves (T) fell (R) and the grass (T) bent to the ground (R). Then it (T) was winter (R).

Theme	Rheme
The days	grew colder.
Fall	came with the leaves changing color.
Then the leaves	fell
and the grass	bent to the ground.
Then it	was winter.

At the beginning of the third and fourth sentences in Extract 8, the textual theme “then”, as a structural component, shows that the adjacent sentences have a paratactic relation. Here, “then” pushes the story forward by portraying the changes of seasons.

Extract 9

If only he (T) had realized that the pebble resting on his back was the magic pebble (R)! “Oh, how I (T) wish he were here with us on this lovely May day,” said Mrs. Duncan (R).

Theme	Rheme
If only he	had realized that the pebble resting on his back was the magic pebble!
“Oh, how I	wish he were here with us on this lovely May day,” said Mrs. Duncan.

Textual theme “oh” in the second sentence, in Extract 9, serves as a continuative. Continuative theme only covers a small range of discourse markers that signify the beginning of a new information. For example, continuative theme is commonly used when the speaker gives a response in a conversation, or when the same speaker continues to express some new content. The first sentence in Extract 9 describes the internal dialogue of Sylvester. The continuative theme “oh” in the second sentence opens the talking of his mother. Coherence between these two sentences is established through their communication.

4.3 Clausal theme in coherence construction of the children’s picture book

The percentage of the clausal themes used in the children’s picture book amounts to 5%. According to Halliday (2004: 363), by virtue of the logico-semantic relation, clauses are related to each other to form clause complex. That is to say that there are varied logico-semantic relations that link two clauses in a clause nexus. Under such circumstance, the explanation of one clause is interdependent on another one. Whilst, the two interdependent clauses are not equal in a clause complex. The clausal Theme occurs if the dependent clause is placed in front of the dominant one. Halliday (2004) also proposes a relation of expansion to further discuss the logico-semantic relations between these two clauses. To be specific, the dependent clause expands the dominant clause by elaborating, extending, or enhancing it. Since the dependent clause in the logico-semantic relation of elaboration is non-defining relative clause, which cannot be put at the initial place of a sentence, there is

no clausal theme to form the elaboration relation. In the children's picture book, there is also no expansion relation of extension, hence, only the expansion relation of enhancement is analyzed in this section.

In the expansion relation of enhancement, the clausal theme enhances the meaning of the dominant clause through the ways of referring to time, condition, place, or manner (Halliday 2004:377). In the children's picture's book, the clausal theme fulfills the enhancement relation only by reference to time and condition.

Extract 10

As he was studying this remarkable pebble (T), he began to shiver, probably from excitement (R), and the rain (T) felt cold on his back (R).

Theme	Rheme
As he was studying this remarkable pebble,	he began to shiver, probably from excitement,
and the rain	felt cold on his back.

In Extract 10, clausal theme "as he was studying this remarkable pebble" in the first clause functions as an adverbial clause to indicate the time when the participant "he" began to shiver in the primary clause.

Extract 11

If he hadn't been so frightened (T), he could have made the lion disappear (R), or he (T) could have wished himself safe at home with his father and mother (R).

Theme	Rheme
If he hadn't been so frightened,	he could have made the lion disappear,
or he	could have wished himself safe at home with his father and mother.

In Extract 11, the first clause "If he hadn't been so frightened" is the clausal theme, presenting a positive condition of what happened in the primary clause.

This section explores the function of simple themes, multiple themes, and clausal theme in constructing coherence in children's picture book "Sylvester and the Magic Pebble". In the children's picture book, a large proportion of simple themes are adopted to generate cohesive devices such as reference, substitution, and lexical cohesion. In examples with multiple themes, modal adjuncts are used in interpersonal themes to form text coherence. The cohesive relations in textual themes can be achieved by conjunctive, structural and continuative components. The clausal themes extend the dominant clauses by enhancing them, and this it to express the discourse coherence through the ways of referring to time and condition.

4. Thematic progression and coherence

This section analyzes the various thematic progression patterns adopted in the children's picture book "Sylvester and the Magic Pebble". The occurring times and the frequency of each thematic progression pattern in the children's picture book are counted and figured out. Then, the influence of each thematic progression pattern on coherence construction of the picture book is illustrated.

Four types of thematic progression pattern are mainly adopted in the children's picture book, and the total numbers and percentages of each of these patterns are counted and calculated. The result is shown in Table 2.

Table 2: Distribution of Thematic Progression Patterns in the Children's Picture Book "Sylvester and the Magic Pebble"

	Parallel Progression Pattern	Focused Progression Pattern	Continuous Progression Pattern	Alternative Progression Pattern
Total number	63	10	29	17
Percentage	52.9%	8.4%	24.4%	14.3%

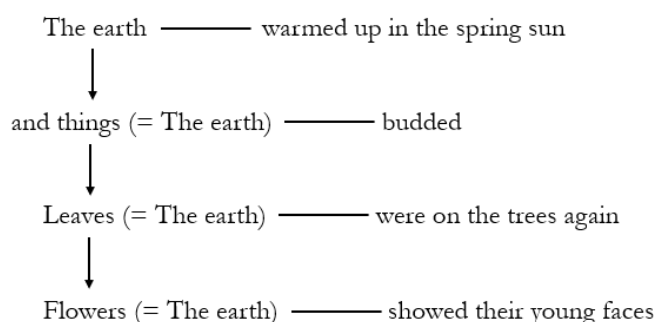
5.1 Parallel progression pattern & coherence

Taking into consideration of the shared knowledge between the writer and the readers, the writer selects the appropriate thematic progression patterns as well as the proper ways to convey new information (Halliday 2004). The parallel progression pattern accounts for 52.9% of all the thematic progression patterns appear in the children's picture book. Theme always presents information that is already known by both the writer and the readers. Parallel progression pattern is usually adopted when the writer starts the clause based on his shared knowledge with the readers. In parallel progression pattern, all sentences share the same theme, maybe not with the same words. The same theme develops different rhemes which express new information as shown in Extract 12.

Extract 12

The earth (T) warmed up in the spring sun (R) and things (T) budded (R). Leaves (T) were on the trees again (R). Flowers (T) showed their young faces (R).

The thematic progression pattern used in Extract 12 is the parallel progression pattern, which can be presented as follows.

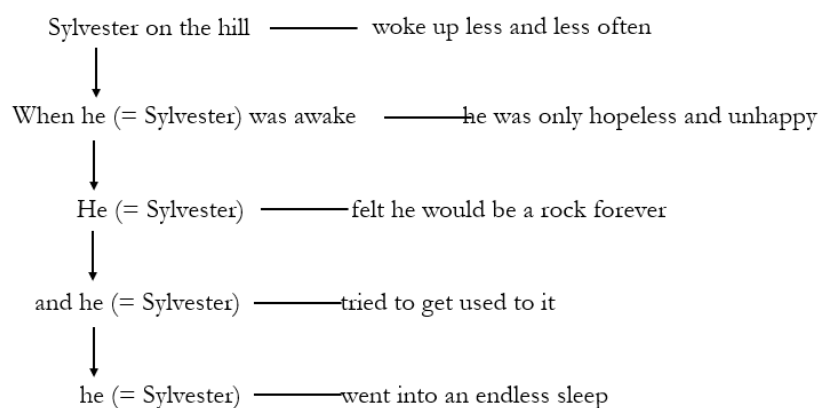


Although the four themes used in the Extract do not appear in the same wording, the last three Themes share a part-whole relation with the first one “the earth”. The “things”, the “leaves” and the “flowers” are used to present the vibrant scene in spring. Therefore, these four themes relate to each other from the semantic perspective and help to realize textual coherence through parallel progression pattern.

Extract 13

Sylvester on the hill (T) woke up less and less often (R). When he was awake, (T) he was only hopeless and unhappy (R). He (T) felt he would be a rock forever (R) and he (T) tried to get used to it (R), he (T) went into an endless sleep (R).

The parallel progression pattern in Extract 13 is shown as follows.



In Extract 13, the following four themes “he” form a co-referential relation with the first theme “Sylvester”, because they all refers back to “Sylvester”. The parallel progression pattern repeats the same theme and further explain its condition by providing different new information. Starting from the same point, these pieces of new information also illustrate clear what the readers expect to read in the following story.

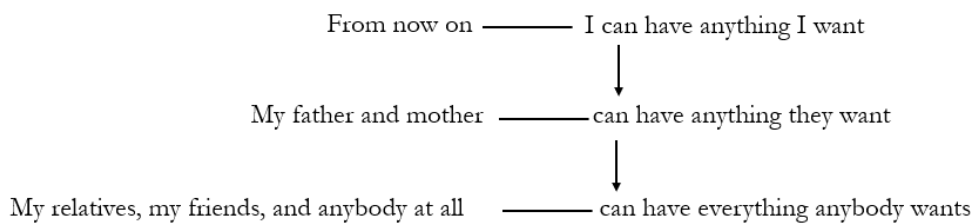
5.2 Focused progression pattern & coherence

Focused progression pattern occurs when a series of sentences share the same rheme, but their themes are different. The proportion of the focused progression pattern in the children’s picture book reaches 8.4%. As illustrated in Extract 14, different from the parallel progression pattern, the focused progression pattern focuses on the rheme part and leads the readers to pay attention to the new information.

Extract 14

From now on (T) I can have anything I want (R). My father and mother (T) can have anything they want (R). My relatives, my friends, and anybody at all (T) can have everything anybody wants (R)!

The focused progression pattern in Extract 14 can be illustrated as follows.



Extract 14 adopts the focused progression pattern and repeats the same rheme to emphasize the excitement and anticipation after Sylvester’s discovery of the pebble.

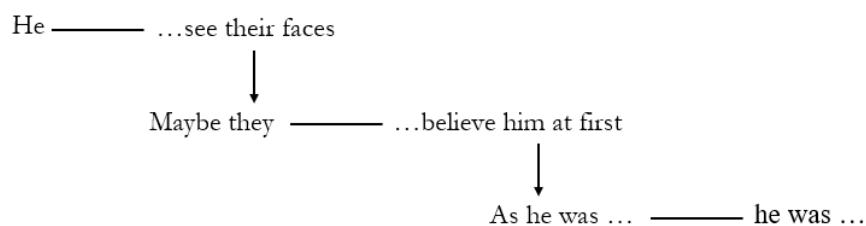
5.3 Continuous progression pattern & coherence

The continuous progression pattern makes up 24.4% of the thematic progression patterns adopted in the children’s picture book. In continuous progression pattern (refer to Extract 15), the rheme of the previous sentence turns into the theme of the next sentence. It is easy for the readers to follow the train of thought of the writer and build textual coherence actively.

Extract 15

He (T) could hardly wait to see their faces (R). Maybe they (T) wouldn’t even believe him at first (R). As he was crossing Strawberry Hill, thinking of some of the many, many things he could wish for (T), he was startled to see a mean, hungry lion looking right at him from behind some tall grass (R).

The continuous progression pattern for Extract 15 is presented as follows.



Extract 15 follows a continuous progression pattern and use personal reference to link up the themes of the previous sentences and the themes of the following sentences. In the second sentence, “they”, as part of the theme, refers to “their” in the rheme part of the first sentence. While, part of the theme “he”, in the third sentence, refers back to part of the rheme “him” in the second sentence.

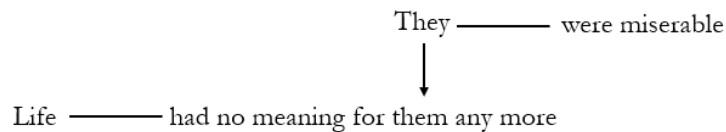
5.4 Alternative progression pattern & coherence

Of all the numbers of the thematic progression patterns used in the children’s picture book, the alternative progression pattern accounts for 14.3%. When the theme of the previous sentence functions as the rheme of the next sentence, it falls into the type of alternative progression pattern. This pattern may disturb the readers thinking since the next sentence seems to start off with a new topic. While, the connection between the theme part of the former sentence and the rheme part of the next sentence gives the readers a sense of suspension and surprise. As the way to construct the textual coherence, the readers need to put more effort to understand what the writer intends to convey in the story.

Extract 16

They (T) were miserable (R). Life (T) had no meaning for them any more (R).

The alternative progression in Extract 16 is listed as follows.



In Extract 16, the “them” in the rheme “had no meaning for them any more” refers to the theme in the former sentence “They were miserable”. The personal reference activates the readers’ process of understanding and realize textual coherence effectively.

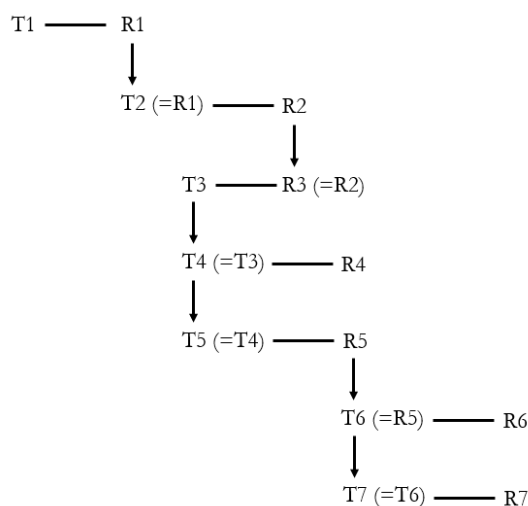
Instead of being used alone, different thematic progression patterns are usually used in combination to promote more complex discourse coherence. Every paragraph has its own way of organization and development. To produce a coherent paragraph, the theme or rheme of the preceding sentence must be in connection with the theme or rheme, as shown in Extract 17.

Extract 17

They (T1) went to the police (R1). The police (T2) could not find their child (R2). All the dogs in Oatsdale (T3) went searching for him (R3). They (T4) sniffed behind every rock and tree and blade of grass, into every nook and gully of the neighborhood and beyond, but found not a scent of him (R4). They

(T5) *sniffed the rock on Strawberry Hill* (R5), *but it* (T6) *smelled like a rock* (R6). *It* (T7) *didn't smell like Sylvester* (R7).

Extract 17 shows how three thematic progression patterns, namely the parallel progression pattern, the continuous progression pattern and the focused progression pattern, collaborate with each other to advance the paragraph. The thematic progression pattern of Extract 17 can be illustrated as follows.



As the figure shows, Extract 17 follows the parallel progression pattern, together with the continuous progression pattern and the focused progression pattern. The simple theme “the police” in the second sentence equals to the rheme of the first sentence. Thus, the two sentences follow the continuous progression pattern. Part of the rheme in the third sentence (“him”) refers to part of the rheme in the second sentence (“their child”). These two sentences form a focused progression pattern. The theme of the third sentence “all the dogs in Oatsdale” is repeated by both themes “they” in the fourth and the fifth sentences. Hence, these three sentences adopt the parallel progression pattern. The sixth theme “it” refers to part of the rheme in the previous clause (“the rock on Strawberry Hill”), there exists a continuous progression pattern between them. The theme “it” in the last sentence is also a repetition of the theme “it” in the preceding clause. So, the parallel progression pattern is formed. Therefore, different thematic progression patterns can be adopted to promote textual coherence with their distinct cohesive effects.

6. Macro-themes, hyper-themes and coherence

Halliday defines theme as “the point of departure of the message” (Halliday 1985: 56). Upholding Halliday’s point of view, J. R. Martin further introduces the realization and

meaning of theme. According to Martin (1992), hyper-theme generalizes what the writer is going to say, while macro-theme sets the readers on the way of speaking. Therefore, macro-theme can be an introductory clause or a group of clauses or a paragraph to predict a series of hyper-themes. Hyper-theme can also be a clause or a group of clauses at the beginning of a paragraph to predict a set of themes. The information flow or periodicity of a text is formed with the pattern of prediction from macro-theme to hyper-themes and from hyper-themes to themes, as well as the pattern of accumulation from new to hyper-new and from hyper-new to macro-new.

The children's picture book "Sylvester and the Magic Pebble" can be divided into five phases, which are introduction, build-up, complication, resolution, and conclusion (Tylor 1871). The introduction part presents the characters, object, and the circumstances in which the story takes place. The build-up part moves the story forward from the discovery of the magic pebble. The biggest conflict, which is also the climax of the story appears in the complication part. The conflict is resolved in the resolution part and the conclusion is presented in the end of the story.

In this children's picture book, the first paragraph, which is also the introduction part, can be regarded as the macro-theme. The first sentence of the other four phases can be treated as the hyper-themes. The macro-theme and hyper-themes of the children's picture book are listed in Table 3.

Table 3: Macro-Theme and Hyper-Themes in the Children's Picture Book "Sylvester and the Magic Pebble"

Introduction	Macro-Theme	Sylvester Duncan lived with his mother and father at Acorn Road in Oatsdale. One of his hobbies was collecting pebbles of unusual shape and color.
Build-up	Hyper-Theme 1	On a rainy Saturday during vacation he found a quite extraordinary one .
Complication	Hyper-Theme 2	As he was crossing Strawberry Hill, thinking of some of the many, many things he could wish for, he was startled to see a mean, hungry lion looking right at him from behind some tall grass.
Resolution	Hyper-Theme 3	Meanwhile, back at home, Mr. and Mrs. Duncan paced the floor, frantic with worry.
Conclusion	Hyper-Theme 4	When they had eventually calmed down a bit, and had gotten home, Mr. Duncan put the magic pebble in an iron safe.

In the introduction part, information such as "Sylvester Duncan", "his mother and father", and "pebbles" are mentioned in the macro-theme. They are not only the main characters and object of the story, but also the main message of the macro-theme. Hence,

they should also occur in the following phases. Indeed, pronouns “he” and “him”, which refer back to “Sylvester Duncan”, appear five times in the following hyper-themes. Accordingly, pronouns “one” and “they” are concerned with “pebbles” and “the Duncans” respectively. Although there is other new information appear in the hyper-themes, it is obvious that the last four phases revolve around the massages in the macro-theme. A high consistency is formed between the macro-theme and hyper-themes. An introduction to characters and object in the macro-theme part not only predicts the following plot, but also makes the story easier to understand. The prediction of the macro-theme helps to construct a more natural and integral story.

Besides macro-theme, hyper-themes can also play a vital role in building a coherent text. Taking the complication phase as an example, the hyper-theme, themes, and the degree of their consistency in this part can be shown in Table 4.

Table 4: Hyper-Theme, Themes and Degree of Consistency in the Complication Phase of the Children’s Picture Book “Sylvester and the Magic Pebble”

Stage	Theme Type	Theme List	Number
Complication	Hyper-Theme	he, He, he, lion, He, he, he, he	--
	Themes (Consistent)	He, He, but he, I, he, and he, The lion, I, Maybe I, he, and he, Oh how I, he, He, His thoughts, He, He, and eventually he, Sylvester	19
	Themes (Inconsistent)	And there, but nothing, but there, Being helpless, Someone, it, but what on earth, The chance, What else, Night	10
Degree of Consistency		65.5%	

In the complication stage in the children’s picture book “Sylvester and the Magic Pebble”, the departure of the hyper-Theme is information about “he” (Sylvester), who is the center of this part. Besides, the noun “the lion”, as another key role, also appears in the hyper-Theme part. The following clauses unfold the story and revolve it around the Theme “he” and “the lion”. The personal noun “I”, the noun “Sylvester” and the possessive pronoun “His” in the following clauses refer to the personal noun “he” in the hyper-Theme part. Thus, the proportion of the consistent Themes used in other clauses amounts to 65.5%. That is, the repeated Themes “he”, “I”, “The lion”, “His” and “Sylvester”, occurring in the following sentences, are in high consistency with the hyper-Theme. They keep accordance with the hyper-Theme and form a coherent representation in the complication stage. The close connection and predication between the hyper-Theme and Themes in the complication stage greatly promote children’s grasping of the main character and comprehending of the thread of plot.

Based on Martin (2007), textual periodicity transfers the focus of discourse analysis from clause level to text level. In the facet of a text, the analysis of prediction between the higher-order themes and higher-order news promotes a regular information flow and facilitates the coherent construction of a text. The higher-order themes and news of the children's picture book is illustrated in Table 5.

Table 5: Hyper-Themes and Hyper-News in the Children's Picture Book "Sylvester and the Magic Pebble"

Introduction	Hyper-Theme 1	Sylvester Duncan lived with his mother and father at Acorn Road in Oatsdale.
	Hyper-New 1	One of his hobbies was collecting pebbles of unusual shape and color.
Build-up	Hyper-Theme 2	On a rainy Saturday during vacation he found a quite extraordinary one.
	Hyper-New 2	Maybe they wouldn't even believe him at first.
Complication	Hyper-Theme 3	As he was crossing Strawberry Hill, thinking of some of the many, many things he could wish for, he was startled to see a mean, hungry lion looking right at him from behind some tall grass.
	Hyper-New 3	Night came with many stars.
Resolution	Hyper-Theme 4	Meanwhile, back at home, Mr. and Mrs. Duncan paced the floor, frantic with worry.
	Hyper-New 4	You can imagine the scene that followed—the embraces, the kisses, the questions, the answers, the loving looks, and the fond exclamations!
Conclusion	Hyper-Theme 5	When they had eventually calmed down a bit, and had gotten home, Mr. Duncan put the magic pebble in an iron safe.
	Hyper-New 5	They all had all that they wanted.

Serving as both the macro-theme and the hyper-theme of the first phase, the introduction part brings the readers into the story and predicts the trend of the plot. The hyper-new of the first phase shifts the focus to the pebble and moves the story forward. In the Build-up phase, the hyper-theme functions as a link between the preceding and the following sentences. It stimulates the readers curiosity and leads them to figure out "how extraordinary the pebble is". Then, the "magic" of the pebble is displayed in turn by the following clauses. The hyper-new of this phase condenses the new information in the above clauses and emphasizes the "magic power" of this pebble again.

The hyper-theme of the complication phase predicts the occurrence of conflict by introducing the "hungry lion" into the story. The state of mind of Sylvester changes from

scare to worry, and even to despair, which is also illustrated in the hyper-new of this phase. The hyper-theme of the resolution phase shifts the topic to the other characters of the story, that is Mr. and Mrs. Duncan. It also predicts the whole process of getting Sylvester back. While, the hyper-new of this phase sums up the story with a happy ending. As an extension of the story, the hyper-theme of the conclusion phase provokes the readers' reflection. The hyper-new of this phase, which is also the macro-new of the whole story, brings out the implied meaning that love is the most important thing in the world.

With explicit structure, the macro-theme of the story draws the readers into the plot. In the build-up, complication and resolution phases, the hyper-themes and hyper-news not only moves the story forward, but also maintains the continuity of the story. The conclusion of the story, as the macro-theme, clearly clarifies the implied meaning of the story and inspires the readers to cherish love.

7. Conclusion

The study analyzes textual coherence in the children's picture book entitled "Sylvester and the Magic Pebble" from the perspective of thematic structure, thematic progression patterns and information flow theory. The major findings can be listed as follows:

Firstly, in the children's picture book, the number of simple themes takes up the largest proportion in the three kinds of themes and clausal themes are used the least. That is, simple theme plays a fundamental role in constructing a coherent text, since the language style of children's picture books needs to be simple and concise. In addition, most of the simple themes in the children's picture book are nouns, noun phrases and pronouns. Some of the cohesive ties, such as reference, substitution, and lexical cohesion can be adopted to promote textual coherence in the semantic level. Within the scope of multiple themes, the modal adjuncts can contribute to the coherence construction in interpersonal theme. Whereas, the cohesive function of textual theme is realized by the conjunctive, structural and continuative components. The enhancement relation between sentences is used to form coherence in the clausal theme.

Secondly, four thematic progression patterns are followed to build textual coherence in the children's picture book. Among them, parallel and continuous progression patterns are adopted in high frequency than focused and alternative progression patterns.

Parallel and continuous progression patterns can help to make a semantic and logical text in a more simple and direct way. Parallel progression pattern places the same information as the departure of all sentences, which is easy for the children to follow the writer's intention. While, continuous progression pattern links the new information of the previous sentence and the shared information of the following sentence, which is quite effective in coherence construction.

Thirdly, macro-theme and hyper-themes can greatly influence the information flow and coherence construction in children's picture book. The predictive function between macro-theme and hyper-themes and between hyper-themes and themes makes the whole story more natural and integral.

Since children's picture books are multimodal discourses which incorporate resources of more than one semiotic mode, such as language, image, color, and even typographical features, the patterns and characteristics of pictorial elements in this children's picture book should also be explored to make clear how the visual modes cohere with the themes of the whole discourse and individual discourse segments. Therefore, future study can be widened to analyze the function of the pictorial elements on coherence construction in children's picture books.

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