



The Comparison of External Logical Metaphors in Leveling Books for Children

Devanni Kusuma Putri; Mangatur Nababan; Tri Wiratno

Master's Degree Program in Linguistics, Universitas Sebelas Maret, Surakarta, Indonesia

<http://dx.doi.org/10.18415/ijmmu.v11i4.5733>

Abstract

This study aims to determine the presence and logical meanings of logical metaphors in leveling books for children, focusing on levels 1, 3, and 4 obtained from StoryWeaver and Let's Read on the Penjaring Website. The total number of storybooks examined in this study are 11, consisting of 5 storybooks for levels 1, 4 storybooks for level 3, and 2 storybooks for level 4. The study focuses solely on linguistic aspects, particularly incongruent conjunctions as logical metaphors. The use of these metaphors can pose challenges related to vocabulary not suitable for the target age. To address this, the study applies Systemic Functional Linguistics (SFL) frameworks on conjunctive relations. Using a qualitative descriptive approach, this multiple-case study employs triangulation through data-collecting methods and source data selection, ensuring trustworthiness. Methods include document analysis and FGD, with source data selected using purposive sampling. Data analysis involves domain, taxonomy, componential, and cultural-theme analysis. The result suggests that there is variation in the use of logical metaphors across different levels of children's books. Level 1 books use logical metaphors less frequently compared to higher levels. Level 1 books use conjunction as circumstance indicate the sequence of events and conjunction as process to show consequence. In contrast, conjunction as a thing is only found in level 3 and 4 books. Additionally, conjunctions as circumstance and process convey various logical meanings more frequently than in level 1. This study also found that conjunction as thing releases means logical meaning. Based on the findings, it is important for writers to consider using logical metaphors, especially in level 1 books, due to readability issues. Therefore, understanding the structure of each level is crucial for creating effective books for children.

Keywords: *logical metaphor; logical meaning; children's storybooks; SFL*

Introduction

In Systemic Functional Linguistics (SFL), logical metaphor works in ideational metafunction as a device of conjunctive relations (CR henceforth). CRs were first proposed by Martin and Rose (2007). Expanding the logico-semantics proposed by Halliday and Matthisen (2004), Martin and Rose (2007) later add a logical device that works in transitivity constituent called logical metaphors, elements of transitivity to release a logic. Logical metaphors can be classified as incongruent realization since they connect ideas or events by using nouns and verbs, not conjunctions. Thus, connecting ideas within a discourse involves not only the use of conjunctions but also the cohesive elements within a clause, including nouns, verbs, and even adverbs. In their book, Martin and Rose (2007) only classifies external and internal conjunctions. Meanwhile, Santosa (2011) and Santosa et al. (2021) argues that all CRs work externally and internally based on how the clauses use CR devices. For that reason, internal and external functions are not limited to conjunctions.

Nowadays, cultivating children to have interest in reading is essential. By taking advantage of technological advances, there are some online platforms providing story books for children. The providers are aware that reading books to children cannot be equal. According to Davidson (2013), leveled books can be arranged on a continuum of difficulty, ranging from very easy to challenging text, based on reading skill levels. This leveling process helps calibrate the difficulty of text and enables matching readers with an appropriate level of challenge in both independent and supported reading contexts. Furthermore, they consider sentence length as a factor. This is because sentence length alone can be misleading and may need to be complemented by other measures. In level 1 children's books, Rog and Burton (2001) expects these books have 0-2 words per page without any story line. Level 2 children's books are built up with simple and familiar language and short sentences. This difficulty will increase as the reading level rises (read Davidson, 2013). The online platforms, StoryWeaver and Let's Read, provide online children books. These platforms differentiate their books into various levels. For instance, StoryWeaver's level 1 books feature easy words, word repetitions, short sentences, and so on.

Given the potential significance of this issue, research on children's storybooks, particularly regarding their structural aspects from the perspective of SFL, is not extensively discussed. However, this does not imply that there are no investigations into children's stories using an SFL approach. The research done by Izzati et al. (2019) and (Sholihah et al. (2018) investigates the structure of children-made story and the translation of children's novel by using SFL perspective. Nevertheless, their research did not focus on how the logical connection releases the logical meanings. Other researchers (Liwenlin et al. 2019; Santosa 2010; Santosa et al. 2021) have studied the use of logical metaphors in discourse. Unfortunately, their research did not specifically focus on children's stories. Although Santosa (2010) examined six magazines, including those for children, the study did not delve into the leveling of books for children. Lastly, Santosa et al. (2022) conducted research focusing on patterns of CR in English Books for Junior High School. This research is somewhat similar to this study, but it does not specifically investigate leveling books for children. Recognizing numerous research gaps in the investigation of logical meaning in leveling books for children, this paper focuses attention on this topic. As previously stated, sentence length might pose a challenge. It means, the use of incongruent connectors, logical metaphors, could also be problematic since Santosa (2003) suggests that children tend to use congruent words and spoken text, which could complicate matters. Yet, the difficulty increases for each the level. This brings possibility in using incongruent logical connectors.

Considering this phenomenon brings an interesting reason to have investigation on children's story, the researchers find a gap on CR usage through each leveling book for children. This research constitutes one component of a broader study investigating CR translations of children's stories on the Penjaring website. Therefore, this paper only discusses linguistic aspects. Moreover, this paper limits its topic only to logical metaphors found in Level 1, 3, and 4 that were taken from StoryWeaver and Let's Read as source texts for translation taken by Language Development and Cultivation Agency. The purpose of this research is to compare the logical metaphors used in Level 1, 3, and 4 children's story books and what logical meaning they release. It is because the data are adapted to the source text used for translation version in Penerjemahan Daring (Penjaring) website. The functions are limited to external functions, as this research only found that this form works externally in children's stories.

In formal linguistics, ideas and events are connected only by conjunctions. In fact, the way to connect them is not only by using conjunctions. There are some logical devices besides conjunctions and all of them fall in different functions with different logical meaning. According to Martin and Rose (2007) CRs can be explicit or implicit. Explicit forms of CRs include conjunctions, continuatives, and logical metaphors, while implicit forms are not visible in the text. Besides, they have functions based on the discourse context, external and internal. Surprisingly, Martin and Rose (2007) only classify external and internal conjunctions. Each function has four majors of meaning: adding, comparing, time, and consequence. The difference between them can be seen in table 1.

Table 1
The Difference Meaning of External and Internal Conjunction (Martin and Rose in Santosa, 2023)

| Meaning | External Conjunction | Internal Conjunction |
|--------------------|---|--|
| Adding | Adding events and qualities | Adding arguments and evidence |
| Comparing | Comparing and contrasting events as well as quality | Comparing and contrasting arguments and evidence |
| Time | Sequencing time events | Sequencing arguments in a discourse |
| Consequence | Explaining why and how an event happens | Drawing a conclusion and countering an argument |

Yet, other CRs (continuatives and logical metaphors) are explicitly described as working externally and internally. Upon deeper investigation, Santosa (2010, 2011) found that other CRs potentially work both externally and internally. The functions are based on whether continuatives and logical metaphors connect events and qualities or arguments and evidence.

There are three logical metaphors: conjunction as process, thing, and circumstance. The logical meaning released by these forms are limited and not as much as the conjunction. Santosa et al. (2023) classifies their logical meaning as mentioned in table 2.

Table 2
The Logical Metaphors, logical meaning, and their expectancy (Modified from Santosa et al, 2023)

| Logical Metaphors | Logical Meaning | Expectancy | EXAMPLE |
|---------------------|-----------------|-------------|---|
| Process | Addition | Neutral | add |
| | Comparison | Neutral | compare |
| | Time | Sequence | Begin, continue, end |
| | Consequence | Cause | Make, cause, result in |
| Circumstance | Comparison | Similar | Similar to, like |
| | | Different | Different from |
| | Time | Sequence | Once upon a time, the following day |
| | Consequence | Cause | Because of, due to |
| Thing | Comparison | Similar | The most important thing, the example, the similarity |
| | | Different | the difference |
| | Consequence | Cause | Reason, trigger, factor, background |
| | | Effect | Effect, impact, result |
| | | Corellation | Corellation, interrelatedness |

As shown in the table, Santosa et al. (2023) seem not to consider logical metaphors are able to release means and condition logical meaning. Meanwhile, Martin and Rose (2007) have said that logical metaphors also have means and conditions for conjunction as thing. Therefore, this research decided to combine these two theories to accommodate data.

All logical metaphors can be changed into conjunction. That is the reason why they are named 'conjunction as'. Conjunction as process takes predicators to release logic. For example, such a hearing is likely to lead to a miscarriage of justice use verbal group as its predicator. A predicator in this clause can be changed into a conjunction: if such a hearing happens, then justice will be miscarried. (taken from Martin and Rose, 2007:149). Meanwhile, conjunction as circumstances is formed in prepositional phrase functioned as circumstance within a clause. For example, is amnesty being given at the cost of justice being done? can be converted into is amnesty being given without justice being done? (Martin and Rose, 2007:149). Lastly, conjunction as thing transforms into participant of a clause which can be a subject, object, or a complement, typically in forms of nouns or noun phrases. This is an example of conjunction as thing taken from Martin and Rose (2007: 151): Conjunctions have an important role in letting us know what to expect at each step of a discourse, This is one reason they tend to come at or near to start of each sentence in English. These two clauses are connected by a conjunction as thing, one reason. Therefore, it can be transformed into conjunction: Conjunctions let us know what to expect so they tend to come at or near the start of each sentence in English.

Method

This is qualitative research to analyze logical metaphors found in leveling books for children, ranging from level 1 to level 4. This study employs Systemic Functional Linguistics in the logical ideational metafunction. By investigating various objects, level 1 to level 4 children's books, this research is designed as a multiple-embedded case study to compare the logical metaphors used in these books. Several scholars have expressed their views on the location of research. According to Lincoln and Guba, as cited in Santosa (2021:56), the location of research is defined as a focus-determined boundary. This view implies that the focus of a study will limit its location. Santosa (2021:56) further elaborates that locations can be divided into three categories: demographic, geographic, and media. Additionally, Spradley (1980) adds that in the research location, there must be three essential elements: place or setting, actor or participant, and event. According to Santosa (2021:56), these elements do not have to be physically present in the real world. However, this does not mean that the data is manipulated for the sake of research. The true intention is that the 'real' nature of these elements is authentically packaged in a medium so that participants, places, and events are imaginative, as in a literary work.

Considering children's books as object of research, this research adopts a third-semiotic order to limit the data. In addition, this research also employed two different sources of data, documents and raters. In selecting the source of data, this research implied purposive sampling technique to design the research based on its purposes. Therefore, the documents are children's story books ranging from level 1, 3, and 4 in StoryWeaver and Let's Read. Meanwhile, the raters are chosen by fulfilling some criterion. Moreover, in analyzing data, document analysis and Focus Group Discussion (FGD) took place. In keeping with trustworthiness, this research employs source of data and data acquisition method triangulations. These methods were taken to prevent the subjectivity of the researcher's point of view. In data analysis, the researchers adopt Spradley Model Analysis (1980) consisting of domain analysis, taxonomy analysis, componential analysis, and cultural-theme analysis.

Results and Discussion

A. Results

The children's books selected for this research include five at level 1, four at level 3, and two at level 4. The different quantities of each level are due to data saturation. As previously mentioned, this research is part of a broader study on the logical meanings conveyed by CR devices. The results indicate that there are 219 CRs conveying logical meaning. However, only 50 of these are considered as logical metaphors. Logical metaphors are less frequent in level 1 books as there is no conjunction as thing in these books. However, other high-level books show that they use it more often than level 1 books. Here is the classification of logical metaphors found in each level of children's books, followed by a chart comparing the three levels:

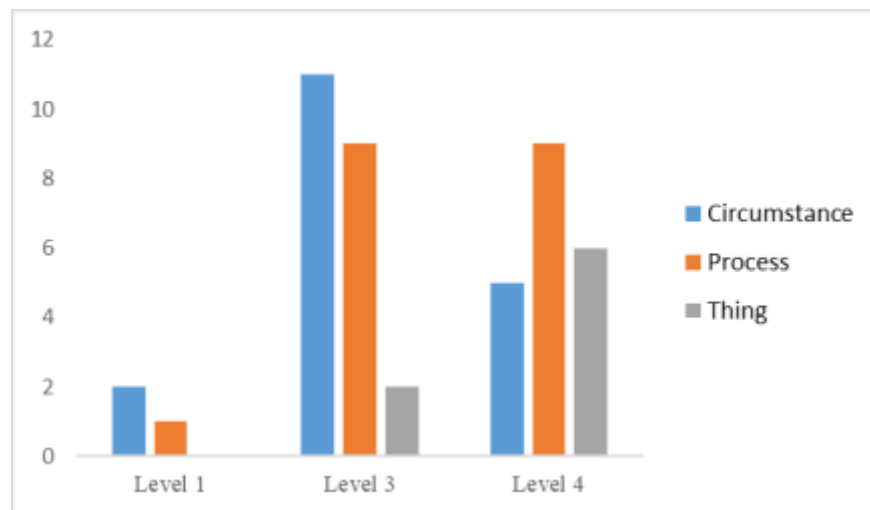


Chart 1 The Comparison of Logical Metaphors in Leveling Children's Books

Logical Metaphors in Level 1 Children's Story Books

After examining five children's storybooks classified as Emergent Reader Level on the Penjaring website (equivalent to Level 1 in StoryWeaver and Let's Read), three data using logical metaphors to convey logical meanings were identified. Specifically, two instances were in the form of conjunctions as circumstance, and one is in the form of conjunctions as process. Additionally, out of the five children's books, only one book uses logical metaphors, entitled *The Rabbit's Long Ears*.

Conjunction as Circumstance

Conjunctions as circumstance found in Level 1 children's books convey one logical meaning: time (sequence). The analysis revealed that two data utilized this form to convey sequences of events. Based on the result, the circumstance releases this logical meaning by using noun phrase and prepositional phrase giving the sequence of events:

1. *A jackal and a rabbit were the best of friends. **One day** the jackal's wife was not feeling well.*
2. *His ears had become very, very long after the jackal had pulled them. **Since that day** the rabbit's tail is short and his ears long.*

These data convey sequences of events through circumstances. In the first example, *one day* marks the beginning of the problem. Meanwhile, the circumstance in the second example uses a

prepositional phrase, *since that day*, to indicate the sequence leading to the end of the story. Based on the results and the context of the story, these two circumstances only indicate when the story begins and ends. Therefore, in level 1 children's storybooks, it can be concluded that circumstances are likely to indicate time.

Conjunction as Process

In Level 1 children's books, only the logical meaning of consequence is identified through this form. The predicator used in conveying this logical meaning are in the forms of verbal phrases. Moreover, Santosa et al (2023) seem not to mention that conjunction as process is able to release effect as an expectancy of consequence logical meaning. However, this research found that conjunction as process releasing this expectancy.

1. *His ears had **become** very, very long after the jackal had pulled them.*

In the example above, *become* is considered to convey an effect rather than a cause, indicating an expectancy of consequence logical meaning. This usage cannot be replaced with *because*, which typically shows cause. Instead, *so* as a conjunction fits well to convey the intended meaning of the effect or result: *The jackal had pulled them so his ears were very, very long.* From the transformation, the clause indicating rabbit's long ears and the event showing the jackal pulling the rabbit's ears are connected by the process of how long the ears can be. Therefore, we have conjunction as process showing effect as expectancy of consequence.

Logical Metaphors in Level 3 Children's Story Books

In analyzing four level 3 children's storybooks, 22 data were confirmed to use logical metaphors. These books appear to use all forms of logical metaphors with different tendencies in releasing logical meanings. Similar to the previous level, this level is likely to predominantly use conjunctions as circumstances rather than conjunctions as things. Conjunctions as processes follow in the second position after circumstances. For circumstances, they release three logical meanings: comparison, consequence, and time. In total, there are 11 data using circumstances. Meanwhile, nine data that are considered as conjunction as processes release time and consequence. Additionally, conjunction as thing is found in two data conveying comparison and consequence.

Conjunction as Circumstance

In level 3 children's story books, the most released logical meaning is comparison with five data. This logical meaning is released by a word *like*. Here, *like* is not considered as a verb, but a preposition. This preposition here works externally because it compares events or qualities. In addition, the use of *one night*, *after*, *before*, and *this time* in these books is circumstance conveying sequence of events. Finally, this form also releases consequence by using *for some reason* and *because of*. The notion of using this circumstance in the discourse shows why some events happen. Here are some examples found in this research.

1. *"No, but I like to imagine they are," said Billy. **Like** there's a huge genie wobbling the earth and laughing to himself."*
2. ***After** all this, Froggy was totally hungry and exhausted. He decided to head home. He saw her mother sitting on their favorite rock, surrounded by beautiful violet flowers. "Mama, have you seen my smile"? asked Froggy.*

These three examples represent each logical meaning released by conjunctions as circumstances. In the first clause, the word *like* has the meaning 'similar to', making it a circumstance. The logical meaning that is released by this word is comparison because it compares the conditions. Meanwhile, the

second clause releases a sequence of events by using *after*. *After* here is not a conjunction since it does not connect clauses, but a preposition. It connects all events experienced by the main character.

Conjunction as Process

This research has also identified conjunction as a process in level 3 children's books. The identification of conjunction as a process reveals two distinct logical meanings: consequence and time. In revealing consequence logical meaning, the verbs (*making, makes, were caused, cause, and creates*) signify causal relation. Meanwhile, the verbs (*kept and continued*) release sequence of events. The following examples illustrate the use of conjunctions as a process in these books.

1. *A massive vibration travelled through the ground, **making** everything shiver.*
2. *"I heard earthquakes **were caused** by a mischievous spirit trying to either escape, or shake the planet," said Billy.*

In the first and second examples, the verbs *making* and *were caused* surely replace conjunctions. The first example employs a reduced clause, using the gerund form, while the second example uses the passive voice. These verbs function as conjunctions *because*. They can be replaced as follows: 1. *Everything is shiver **because** massive vibration travelled through the ground;* 2. *"I heard, earthquakes happen **because** a mischievous spirit trying to either escape, or shake the planet, " said Billy.*

Conjunction as Thing

Finally, the conjunction as a thing is encountered very rarely in these books. There are only three instances of this form found in the data. These instances represent logical meanings of comparison and consequence. The logical meaning of consequence is conveyed by *why* and *reasons*, while comparison is conveyed by *similarities*. Below are the examples.

1. *"The smile is in your eyes, sweetie."*
"Ugh ! In my eyes?"
*"Yes, It is within you, me, and all of us. Don't look for **reasons** to smile. Pass the smile and joy around. It's infectious and spreads fast.", Mama frog explained.*
2. *The tiger looked at his reflection in the pond. He saw **similarities** between himself and the little cat.*

The examples illustrate varying logical meanings through the participants. The first example demonstrates a causal relation between the character's desire to smile and the catalyst prompting this action, indirectly linking the event of smiling with the initial response of the mother. Meanwhile, the second example conveys comparison. These participants can be transformed into a conjunction, as follows:

1. *"The smile is in your eyes, sweetie **so** you can smile"*
"Ugh ! In my eyes?"
"Yes, It is within you, me, and all of us. Pass the smile and joy around. It's infectious and spreads fast.", Mama frog explained.
2. *The tiger looked at his reflection in the pond. He looked at himself **like** the little cat was behaving.*

Logical Metaphors in Level 4 Children's Story Books

Based on document analysis, 20 data are identified using this form in level 4 children's story books. Conjunction as a process is frequently found in these books, followed by conjunction as circumstance and conjunction as thing. This level appears to have a tendency to use conjunction as thing less frequently. Based on the trend observed in the data at this level, the logical meaning of time is present

in every form of logical metaphor. Meanwhile, the logical meaning of cause and effect is only realized through conjunction as process, while the logical meaning of comparison is realized through conjunction as circumstance. Additionally, Santosa (2010, 2011, 2021) and Santosa et al. (2022, 2023) do not explain that logic as thing accommodates the logical meaning of means. However, this study found a tendency for conjunction as participant in level 4 children's storybooks to be used to realize means, as discussed by Martin and Rose (2007).

Conjunction as Process

Through the investigation, conjunction as a process in level 4 appears to be frequently used to convey various logical meanings through predicates. Out of the four logical meanings, this research identified two: consequence and time. Certain verbs (such as *made*, *gave*, *kept*, *makes*) release cause expectancy, while others (like *grow*, *become*) indicate effect expectancy. Since Santosa et al. (2023) have not discussed the presence of effect expectancy in logical metaphors, this research proposes that logical metaphors are able to release effect as expectancy. Here are some data using this form:

1. *You had a stomach bug. It made you vomit. It **gave** you cramps.*
2. *I play the shadow game with my friends. ...
...I stand, my friends stand. We see our shadows away. We **grow** tired and return to class.*

As shown above, these verbs connect events. The verb *gave* and *grew* in the first and second examples show the effect of stomach bug and the activity of shadow game done by the characters. If they are replaced with a conjunction, it would be so: 1) *You had a stomach bug. It made you vomit **so** you cramps.;* 2) *We play shadow game, **so** we feel tired and return to class.*

Conjunction as Circumstance

After examining the various forms of circumstance in level 4 children's storybooks used to convey logical meaning, this form releases two logical meanings: time and comparison. In conveying time logical meaning, the forms of circumstance is varied from noun phrase (*these days*), prepositional phrases (*in the morning*, *at dawn*), and preposition (*before* and *after*). Moreover, the comparison logical meaning is released through the prepositional phrase (*similar to*).

1. *I hear the cock crow at dawn. The sun moves over Terfa's compound **before** the morning meal.*
2. *What Prukalpa's team does is clean up the information and organize it. It's **similar to** the way you arrange your desk so you can find pens, papers and other material when you look for them.*

As can be seen through these data, the preposition *before* in the first example connects nominal group, making it a circumstance rather than a conjunction. This preposition attempts sequence of events that should be happening when the certain event happened. In contrast, the phrase *similar to* in the third example indicates comparison between how the characters do their work and desk-organizing. By comparing these two activities, the writer aims to create an analogy that is familiar for children to imagine. This comparison is reinforced by how the characters' activity is likened to an activity that is relatable and understandable for children.

Conjunction as Thing

Conjunction as a thing is found in level 4 children's books, conveying logical meanings of means and time. The use of means as expectancy in these books aligns with Martin and Rose (2007) and is realized through noun phrases and noun clauses positioned as objects of clauses. However, the sequence of events is conveyed by noun phrases, with only one datum using this form for conveying it. Below are the data conveying them.

1. *If the principal got this information, she might wonder why six students of a class fell ill in the same way on the same day? Was it the lunch served at school? Could it be the water they drank in school? This is **how** information about groups can be very useful.*
2. *What Prukalpa's team does is clean up the information and organise it. It's similar to **the way** you arrange your desk so you can find pens, papers and other material when you look for them.*

The examples you've provided illustrate the use of conjunction as thing in Systemic Functional Linguistics (SFL), where a noun clause or phrase functions as an attribute in an attributive relational process. In the first example, the noun clause *how information about groups can be very useful...* is the attribute of *this*, representing an attributive relational process. Similarly, in the second example, the noun phrase *the way* releases the method of arranging desk to find thing the 'readers' look for. All of them can be changed into a conjunction *to*: 1) *Information about groups can be very useful to gather information.*; 2) *you arrange your desk to you can find pens, papers and other material when you look for them.*

B. Discussion

Table 3 below summarizes the findings to identify patterns. As shown in the table, logical metaphors are rarely found in level 1 children's storybooks. The level, metaphors, and logical meaning they connect are depicted in the table.

Table 3
Componential Analysis of the Comparison of Logical Metaphors in Leveling Children's Storybooks

| Levels | Metaphors | Logical Meanings | Frequency |
|---------|--------------|----------------------|-----------|
| Level 1 | Circumstance | Time (Sequence) | 2 |
| | Process | Consequence (Effect) | 1 |
| Level 3 | Circumstance | Comparison (Neutral) | 5 |
| | | Time (Sequence) | 4 |
| | | Consequence (Cause) | 2 |
| | Process | Consequence (Cause) | 8 |
| | | Time (Sequence) | 2 |
| | Thing | Consequence (Cause) | 2 |
| | | Comparison (Neutral) | 1 |
| Level 4 | Process | Consequence (Cause) | 5 |
| | | Consequence (Effect) | 3 |
| | | Time (Sequence) | 1 |
| | Thing | Means | 4 |
| | | Time (Sequence) | 4 |
| | Circumstance | Time (Sequence) | 5 |
| Total | | Comparison (Neutral) | 1 |
| | | | 50 |

The frequency of conjunctions as circumstances indicates a trend where this level primarily uses them to convey time-related logical meaning. These forms are evident in a book entitled *Rabbit Long Ears*, published by StoryWeaver as one of the level 1 children's storybooks. However, according to Davidson (2013), figurative language, such as "once upon a time," tends to be challenging for children to comprehend due to vocabulary and sentence complexity. These challenges may reduce the readability of the text for emergent readers. Davidson suggests that writers should consider using simple clauses and familiar words to enhance readability. Also, Rog and Burton (2001) add that there is no need to have storyline in level 1 children's storybooks. This classification is in line with StoryWeaver reading guide since level 1 children's storybooks appear to be simpler and more straightforward in their language and structure to accommodate the early stages of reading development. In addition, result of a research done

by Izzati et al. (2019) shows that children tend to use congruent words as what Santosa (2003) states. Santosa also highlights that children tend to understand congruent words since they are close to the reality. Based on the investigation, the book *Rabbit Long Ears* appears to be less understandable for emergent readers, as it uses logical metaphors and complex sentences, despite having only three data of logical metaphors.

The next levels, level 3 and 4 children's storybooks, show the difference in use of logical metaphors and what logical meaning they release. The table above shows the use of logical metaphor is increasing. Level 3 and 4 children's storybooks have tendency to be similar in using logical metaphor. However, level 3 children's storybooks seem to use conjunctions as circumstances, while conjunction as process is mostly found in level 4 children's storybooks. The use of circumstance in levels 3 and 4 is primarily for expressing time, although comparison is more prevalent in level 3. Consequence is rarely conveyed by this form in level 4. The last logical metaphor, conjunction as a thing, is rarely found in level 3 but is more prevalent in level 4. These findings align with the results of Linwelin et al.'s (2019) research on logical metaphors in a novel. Novel is for adult and here the books in level 3 and 4 tend to have similarity in the use of variety logical metaphors. Level 3 children's storybooks tend to use conjunction as thing to convey consequence and comparison. Meanwhile, level 4 children's storybooks tend to use it to convey means and time. Unfortunately, Santosa (2011) and Santosa et al. (2023) seem not to discuss means logical can be released by conjunction as thing. In contrast, Martin and Rose (2007:151) has already mentioned that this form releases four logical meanings: time, consequence, means, and condition. Therefore, this research found it releases means logical meaning.

Examining the functions realized by logical metaphors, this study reveals that in the analyzed children's books, these metaphors serve only an external function. The data presented in this paper illustrates their use in connecting events and describing qualities. This finding aligns with Santosa et al. (2022), who observed that causal relations in narratives primarily function externally. Santosa et al found that narrative tends to use external CRs because they are used to adds, describe causality in an event, and show the sequence of events. Despite this, internal functions are still present in this genre, where they serve to extract story value and elaborate on elements within the story. However, this research did not identify any instances of internal functions in logical metaphors. It is worth noting that logical metaphors can also function internally when they conclude and elaborate on arguments, as well as express the writer's justification (Santosa et al. 2021).

Furthermore, Santosa (2010) observed that magazines aimed at children tend to use spoken text over written text. This reason is attributed to the infrequent use of logical metaphors in children's magazines, indicating a predominant use of congruent CRs, conjunctions. Although there are 50 logical metaphors in leveling children's storybooks, it is still less than the use of conjunctions. Considering Davidson's (2013) advice, writers should aim to create structures that are easily understood by children.

Conclusion

This research aims to identify the logical metaphors present in children's storybooks at each level. The findings indicate that level 1 books tend to use logical metaphors less frequently than levels 3 and 4. Across all levels, conjunctions as circumstance are predominantly used to convey time, comparison, and consequence. Additionally, conjunctions as process primarily convey consequence and time. However, level 1 children's books appear not to use conjunctions as things, while levels 3 and 4 do. This form is more common in level 4 than in level 3, conveying means, time, consequence, and comparison. Considering the number of logical metaphors in these children's storybooks, writers should pay attention to structure and vocabulary, as advised by Davidson.

References

- Davidson, Marcia. 2013. "Books That Children CAN Read: Decodable Books and Book Leveling." (November):iii–23.
- Halliday, M.A.K.; Matthisen, Christian M. I. M. 2004. *An Introduction to Functional Grammar*. Thrid. New York: Oxford University Press.
- Izzati, Novia, Djatmika, and Riyadi Santosa. 2019. "Grammatical Intricacy Dalam Cerita Pendek Karya Penulis Anak Indonesia." *LiNGUA: Jurnal Ilmu Bahasa Dan Sastra* 14(1):213–22. doi: 10.18860/ling.v14i1.6710.
- Liwenlin, Liwenlin, M. R. Nababan, and Riyadi Santosa. 2019. "Comparing Logical Metaphor as Conjunctive Relation in the Novel *Pride and Prejudice* and Its Indonesian Version." 338(Prasasti):2011–14. doi: 10.2991/prasasti-19.2019.33.
- Martin, J.R.; Rose, David. 2007. *Working with Discourse: Meaning Beyond the Clause*. Second. New York: Continuum.
- Rog, L. J., and W. Burton. 2001. "Matching Texts and Readers: Leveling Early Reading Materials for Assessment and Instruction." *The Reading Teacher* 55(4):348–56.
- Santosa, Riyadi. 2003a. *Semiotika Sosial: Pandangan Terhadap Bahasa*. 1th ed. Surabaya: Pustaka Eureka.
- Santosa, Riyadi. 2003b. *Semiotika Sosial*. 1st ed. Surabaya: Pustaka Eureka.
- Santosa, Riyadi. 2010. "Bentuk Dan Makna Metafora Logikal Dan Pengaruhnya Terhadap Gaya Bahasa." *Kajian Linguistik Dan Sastra* 22(2):183–92.
- Santosa, Riyadi. 2011. *Logika Wacana: Analisis Hubungan Konjungtif Dengan Pendekatan Linguistik Sistemik Fungsional*. 1st ed. Solo: UNS Press.
- Santosa, Riyadi. 2021. *Dasar-Dasar Metode Penelitian Kualitatif Kebahasaan*. 1st ed. Surakarta: UNS Press.
- Santosa, Riyadi, Agus Dwi Priyanto, Tri Wiratno, Yanuar Yanuar, and Djatmika Djatmika. 2022. "Patterns of Conjunctive Relation (CR) in Phases and Stages of Narratives in Year Three Junior High School English Books and Their Pedagogical Implication." *Script Journal: Journal of Linguistics and English Teaching* 7(01):104–29. doi: 10.24903/sj.v7i01.1037.
- Santosa, Riyadi, Sumarlam, Tri Wiratno, Agus Dwi Priyanto, and Ratna Susanti. 2021. "Internal Continuatives and Logical Metaphors: A Development of Classifying Conjunctive Relation." *JEES (Journal of English Educators Society)* 6(2):284–92. doi: 10.21070/jees.v6i2.1360.
- Santosa, Riyadi, Tri Wiratno, Agus Dwi Priyanto, and Djatmika. 2023. *Genre Dan Register Untuk Penelitian Dan Pengajaran*. 1st ed. Surakarta: UNS Press.
- Sholihah, Husna Imro'athush, Riyadi Santosa, and Djatmika Djatmika. 2018. "Analisis sirkumstan pada buku cerita anak the 7 habits of happy kids karya sean covey dan terjemahannya (Kajian Terjemahan Dengan Pendekatan Systemic Functional Linguistics)." *LINGUA: Journal of Language, Literature and Teaching* 15(1):29. doi: 10.30957/lingua.v15i1.428.
- Spradley, J. P. 1980. *Participant Observation*. New York: Rinehart and Winston.

Copyrights

Copyright for this article is retained by the author(s), with first publication rights granted to the journal.

This is an open-access article distributed under the terms and conditions of the Creative Commons Attribution license (<http://creativecommons.org/licenses/by/4.0/>).