Grammatical Cohesion in Indonesian-Speaking Preschoolers' Narrative

Editia Herningtias and Bernadette Kushartanti

Abstract   This chapter discusses the use of Indonesian grammatical cohesive devices in preschoolers' narrative productions. The participants of this study are three- to six-year-old children ($N = 60$). All children live in Jabodetabek area and use Indonesian as the first language. We use a wordless picture book to elicit the use of reference, ellipsis, substitution, and conjunction in children's storytelling. Cohesive devices in children's narration of the picture story are identified and analyzed with quantitative and qualitative approaches. The result indicates a tendency of increasing use of reference, ellipsis, substitution, and conjunction in older children, especially in lexical variation. We also find that children still use inappropriate cohesive devices. We also find correlations between reference, ellipsis, and substitution; when participants did not use reference, they preferred to omit the character from the story. Nevertheless, there is no significant difference between the age groups.

Keywords   Narratives · Cohesion · Grammatical cohesive devices · Preschoolers · Indonesian

Introduction

The narrative medium is an authentic mode of communication in which children are encouraged to participate (Reese et al., 2011, p. 133). It refers to the "telling of something, 'a story' or 'stories'" (Gimenez, 2010, p. 200), one of many skills that children learn. In narrative, many aspects in children's linguistic competence, such as lexical knowledge and knowledge of story structure, can be observed. Moreover, narrative production also reveals how children learn to guide their listeners by using certain devices. To make the listeners understand the story he/she is relating, children

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should tell a coherent and cohesive story (Ariel, 1996; Collozo & Whitey, 2014; Cornish, 2006; Mäkinen et al., 2014). A coherent narrative can be observed in the structure, including the plot, events, and characters (see, for example, Reese et al., 2011; Sah, 2015). A cohesive narrative comprises the use of lexical choices and connectivity, which can be observed by the use of cohesive devices (see, for example, Berman, 2009; Mills et al., 2013).

Cohesive devices are needed for the wholeness of discourse (Brown & Yule, 1983; Halliday & Hasan, 1976). Halliday and Hassan (1976) distinguish two types of devices that are manifested through grammar and vocabulary. These are grammatical and lexical cohesive devices. Grammatical cohesive devices include reference (the relation between discourse elements which precede or follow), ellipsis (the omission of part of an element in the discourse), substitution (the replacement of a segment, especially a word or a sentence segment, by another word), and conjunction (the relationship which indicates how a subsequent sentence—following or preceding—is linked) (see Renkema & Schubert, 2018, pp. 126–127). Lexical cohesive devices can be distinguished as reiteration and collocation, when repetition, synonymy, hyponymy, meronymy, and antonymy are included in reiteration (see Renkema and dan Schubert, 2018, pp. 127–128).

Storytellers use cohesive devices to enable the hearer to understand the character and storyline (Ariel, 1996; Colozzo & Whitely, 2014; Cornish, 2006; Mäkinen et al., 2014). These devices play an important role in the success of creating a good narrative, especially in the connectivity used to arrange the chain of cohesion between sentences in a story (Brown & Yule, 1983; Halliday & Hasan, 1976). The successful use of these cohesive devices requires certain skills as well as particular knowledge on the part of the speaker, including the ability to create story plots and having an awareness of the listener's perspective and needs (Collozo & Whitely, 2014; Karmiloff-Smith, 1985; Orsolini et al., 1996; Schneider & Hayward, 2010).

The present chapter deals with the use of cohesive devices in preschoolers' narrative production. Many studies show that the use of grammatical cohesive devices in children's narrative develops over time (Clark, 2009; Colozzo & Whitely, 2014; Hickmann, 2009; Mäkinen et al., 2014; Vuletich, 2017; Wigglesworth, 1990). In many of the studies of language development, researchers have observed that the use of cohesive devices plays an important role in children's narrative production. To maintain topic continuity in narration, which includes characters, events, and settings, children learn that they must use, not only repetitions of certain elements, but also variations of them, such as references, ellipses, substitutions, or conjunctions. However, the learning process takes a long time. Wigglesworth (1990) found that young children tended to use a form of cohesive device to refer to different references and this sometimes led to ambiguity in the storytelling. In their study of preschoolers' (three- to six-year-old children) narrative production, Orsolini et al. (1996) found that children tend to use ellipses for nouns more frequently, as they prefer to use nonverbal indicators, such as pointing to a character in a storybook. O'Grady (2005) also suggested that younger children more frequently use an ellipsis as the subject of a sentence. As for conjunctions, Hickmann (2009) found that English-, French-, German-, and Mandarin Chinese-speaking preschoolers frequently use "then" and its equivalent.

As they grow older, the use of "then" decreases or disappears as they start to use other conjunctions to combine two clauses or sentences (Hickmann, 2009).

Even though studies on children's narrative are plentiful, studies in the Indonesian context are still limited. Manstura (2006) studied the coherence in preschoolers' narrative production from a psychological perspective. She found that pictures helped three-year-old preschoolers to retell a story in a coherent manner. Manstura argued that without a storybook, children tend to retell a story in incoherent sequences and with an added storyline. Novietri and Kushartanti (2018) had studied the use of cohesive devices in deaf and hearing children's writing. The research found that both deaf and hearing children used cohesive devices to construct a story. However, deaf children generally used references to a lesser degree than hearing children did. Demonstrative reference with unclear references was found only in deaf children's narratives. In addition, hearing children used more ellipses than their counterpart group. Deaf children tended to use fewer temporal conjunctions. This could be because not all conjunctions were available in the sign language vocabulary. Ferhadija and Kushartanti (this volume) studied preschoolers' use of grammatical cohesive devices in narrative production with a focus on gender differences. They found that there were no significant differences in terms of cohesion between the boys and the girls. Puspita and Kushartanti (also this volume) examined the use of lexical cohesive devices in narrations by bilingual Javanese-Indonesian school-age children in Pati, Central Java. Their study found that these bilingual children were already capable of using Indonesian lexical cohesive devices in the narration of the silent film *The Pear Story* (Chafe, 1975). Nevertheless, they were still influenced by their first language, Javanese.

The chapter discusses the use of grammatical cohesive devices in the narratives of middle-class Indonesian-speaking children, aged 3–6. The study presented here is part of the first author's master thesis (Herningtias, 2017), conducted under the supervision of the second author. This study applied semi-structured elicitation (following Eisenbeiss, 2010) for the data collection. The following sections will discuss the theoretical framework, the research method, and the results of the study.

Children's Language and Grammatical Cohesion

Berman (2009) mentioned three important aspects in the functions of the narrative: reference, temporality, and connectivity. These aspects deal with discourse cohesion. Children learn to introduce the characters, settings, and events and how to maintain these components by the use of cohesive devices. The devices emerge quite early, but the mastery takes a long time (Berman, 2009, p. 358).

At the age of 3–4 years, children begin to develop their narrative ability (Hoff, 2009, p. 7). According to Piaget, three- to six-year-old children are in an egocentric stage, during which they accentuate any story's connections to themselves and their environment (Hoff, 2009, p. 115). Children will dominate the conversation by talking about themselves, their personal experiences, and their fantasies (Ninio & Snow,

1996). This means that children in this age range tend to focus more on their own narrative needs than on the listener's need to understand the storyline. Hoff (2009) mentioned that the first cohesive device used by five- and six-year-old preschool children is reference, especially the pronoun. However, the use of reference is still limited, and sometimes, the listener cannot understand the objects that are being referred to in the previous speech (Mäkinen et al., 2014). In child language, the use of ambiguous pronouns is a natural phenomenon in preschoolers' speech, where the references, *we* and *him,* are unclear, as in the following (bold type was added by us) (O'Grady, 2005, p. 136).

Researcher   : Can you tell me about the barbecue that you had?

*Child   : **We** had a barbecue right over here and I told **him** to*
*   don't put it.*

Berman and Slobin have investigated how children tell a story based on frog story pictures. An example below presents a three-year-old child's utterances (as cited in Clark, 2009, p. 332):

They're looking at it and there's a frog. He's looking at the jar (whispers): cause his frog's not there. Getting out. (Turns several pages fast, looks at boy climbing tree)

By the age of 5, children typically use nouns and pronouns to refer to clear things or characters, as shown in the following example (Clark, 2009, p. 333).

When the boy and the dog were as—asleep. The frog jumped out of the jar. And then the boy and the dog woke up. The frog was gone. Then the boy got dressed, and the dog stuck his head in the jar. And then the boy opened up his windows…

The five-year-old child, as shown in the example above, was able to use the references appropriately. She referred to the characters as *the boy and the dog* in the beginning of the story, using *his* to refer to the dog. She was able to lead the listener to understand her story. She was also able to use the connective marker *then.*

In Hickmann and Hendriks' study (1999), English-, French-, German-, and Mandarin Chinese-speaking children used conjunctions with a "then" meaning, as their first conjunction when telling stories. As they grow older and their vocabulary develops, their use of "then" conjunctions decreases. Children choose other words to express the order of their stories, and their lexical choices are more varied, using words, such as "while" (Hickmann, 2009, p. 279).

On the use of ellipsis, by contrast, O'Grady (2005, p. 91) stated that it is commonly found in preschoolers' speech, as they still use incomplete speech. There are numerous possibilities that can be used to fill in for the subject of a sentence. Due to their limitations in vocabulary and composing sentences, children get rid of the most dispensable things first, especially the subject (O'Grady, 2005, p. 91).

Method

Language research which involves young children as the subjects requires substantial effort to collect children's speech. In studies of children's narrative production, many researchers have used wordless picture books (see Reese et al., 2011) to elicit children's speech. Eisenbeiss (2010) suggested a technique, which is called semistructured elicitation tasks. In this technique, the researcher uses instruments, such as a storybook, to elicit children's speech. This study adapted the aforementioned method.

This study also used a wordless picture book as the main instrument for eliciting narrative production and employed a quantitative approach to examine the tendencies on the use of cohesive devices by children. A pilot study was conducted before we collected the data, to ensure that the children could follow our instructions during the data collection and whether they understood the story in the pictures. We used two wordless picture books. The first was titled *Nomi Suka Bersih-bersih* "Nomi likes cleaning up" and the second one was *Makan Rame-rame* "Let's eat together." In their study on children's narrative, Mäkinen et al. (2014) suggested that using a storybook whose situation was familiar to children was recommended to assess children's narrative. As we found that the characters in *Makan Rame-rame* were more familiar to the children, we chose this book as the instrument for this research.

From the pilot study, we learned that children needed to be guided at certain points. We observed that at times they were hesitant to talk. Therefore, we guided the children using questions, such as *ada apa?* "What happens?" every time we turned a page and looked at the picture. Without the guiding question, the child was just quiet and seemed to not know what to do. Moreover, when we questioned some children, the answers were only nouns referring to the characters. We added the question *sedang apa* "What is X doing?" while pointing at the character, to elicit more varied answers from the children. Therefore, we created a scenario containing questions for each page. This scenario contained the steps for the data collection, which started from showing the book and then showing the images contained in the book; we also designed a (very short) question for each image to elicit the children's speech. This scenario was used as the procedure for the data collection. This stage of the procedure was also used by Ferhadija and Kushartanti (this volume), but in the end, interactions with different children led to different processes for obtaining the data. This scenario has also been presented in the section about the data collection procedure.

Instrument

The main instrument, as has been previously mentioned, was a wordless picture book, titled *Makan Rame-Rame* by Ideo (2015).[1] *Makan Rame-Rame* is a story about birds

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[1] Permission to use the book for the research has been granted by the author.

who come one by one to find food. At the end of the story, these four birds turn out to be eating on a buffalo's back. There are five characters in the book, namely the four birds and the buffalo. The introduction of multiple birds, one by one, is used to encode the use of pronouns referring to the birds. The eight-page cohesive storybook is assumed to be able to elicit the use of conjunctions, such as *lalu, kemudian* "and then." This short book was chosen out of consideration for the short attention span of our three-year-old subjects.

Participants

The participants in our study were preschool children, aged 3–6 years, whose first language was Indonesian. Sixty children were recruited and grouped into four age groups, each age group consisting of 15 children. At the time of the present study, the children were attending kindergartens or playgroups in the Greater Jakarta region. Information on the parents' occupation, ethnicity, time spent with the child, other caretaker(s) if any, and whether there was a storytelling activity at home, was obtained through parental questionnaires adapted from Kushartanti (2014). Questionnaires were distributed to the parents of all sixty children; however, only 48 questionnaires were completed. Information on the other 12 children, whose questionnaires were not returned, was obtained from their teachers. This information was needed for the description of the children's demographic background, including their socioeconomic status.

Based on the questionnaires and information from the teachers, 50% of the children's fathers and 25% of the mothers worked as private employees; 31% of the fathers and 6.7% of the mothers were entrepreneurs; 11.7% of the fathers and 15% of the mothers were government employees; 6.7% of the fathers and 1.7% of the mothers worked as military personnel; 41.7% of the mothers were housewives, and 10% of the mothers were teachers. Of the 60 children, 23.3% were firstborn children; 23.3% were middle children; 30% were youngest children, and 23.3% were only children. All participants spoke Indonesian as their first language, and the parents had not been exposed to regional languages as their first languages. This means that all participants lived in families where Indonesian has been the first language for at least three generations. Based on information about parents' occupation, we could infer that all the participants came from middle-class families.

Data Collection Procedure

We invited each child to look at each page of the book. As they had already viewed the other book (see the explanation in the previous sections), we started our conversation by mentioning it first and then showing the instrument later. This was to ensure that

all the children experienced the same situation. The opening conversation was the following.

> Ini tante punya buku lagi nih, bagus. Coba liat. Sama seperti buku lebah tadi, buku ini juga nggak ada kata-katanya. Tante minta tolong kamu ceritain lagi dong ke Tante. Kamu lihat dulu nih.
>
> [Trans.]
>
> Auntie (I) have another book, a good one. Please have a look. Like the book I just showed you, this book doesn't have any words. Please tell me the story. Have a look first.

We asked the child to describe the picture on each page of the book by pointing to the object and saying *"Ada apa ya?"* "What's there (in the picture)?" or *"(…) sedang apa*?" "What are (they) doing?" At this stage, we did not record the children's speech.

After viewing the whole book, each child was then asked to retell the whole story while holding the book and turning the pages. We started with the following:

> Nah, sekarang Tante mau meminta (child's name) untuk cerita semuanya, dari awal sampai akhir
>
> [Trans.]
>
> Now I want you to tell the whole story, from the beginning to the end.

When the child was telling the story, we provided short responses, such as *"he'em"* "uh huh" or *"ya"* "yes" or repeated what the child said, as an acknowledgment of listening and an encouragement for them to continue. The whole interaction between the child and the researcher was then recorded.

Transcription and Data Processing

The recordings were transcribed[2] using a transcription convention adapted from Du Bois (2006). Based on the transcription, the number of clauses produced by the children was examined. Afterward, we identified the cohesive devices and grouped each type of grammatical cohesive device. We used three different symbols to mark these devices in the narrative, as in (1) below.

(1)

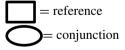(CH1 = the child; INT = interviewer/the researcher)

CHI	;	Burung.	"bird"
CHI	;	Burung nya sedang..meluncur.	"the bird is gliding"

INT	;	He'e:m.	"yes"
CHI	;	(Lalu) Ø sedang mencari makan.	"and the (the bird) is looking for food"
INT	;	He'e:m.	"yes"
CHI	;	Burung sedang bermain.	"the bird is playing"
INT	;	He'em.	"yes"
CHI	;	Burung sedang makan.	"the bird is eating"
INT	;	He'e:m.	"yes"
CHI	;	Burungnya sedang terbang.	"the bird is flying"
INT	;	He'em.	"yes"
CHI	;	Burung sedang terbang lagi.	"the bird is flying again"
INT	;	He'em.	"yes"
CHI	;	..Ø sedang mencari makan.	"Ø is looking for food"

Ø = ellipsis; in this example, Ø refers to *burung* (bird) which is seen by the child in the picture

☐ = reference

◯ = conjunction

We coded all the identified grammatical cohesive devices, put them into a matrix, and analyzed them quantitatively to examine the correlation between the use of cohesive devices and the age factor.

Children's Use of Cohesive Devices in This Study

An Overview of Participants' Utterances

We analyzed only the children's speech that was produced when they were retelling the story. This means that the story they told when they were just shown the book and viewing it (see section data collection procedure) was not analyzed. Table 1 presents the mean and range scores of the number of clauses (utterances) made by the children by age group.

   The data in Table 1 indicate that the four-year-old children (*M*: 10.87; SD: 3.96) tended to use a larger number of clauses than the three-year-old children (*M*: 9.33; SD: 2.90). The five-year-old children (*M*: 12.07; SD: 3.77) also tended to use more clauses than the younger groups. The six-year-old children (*M*: 9.87; SD: 3.02), however, used fewer clauses than the youngest group did. It was found that there were children in the oldest group who used seven clauses to tell the whole story, one of which is shown in the following text (2), and which was taken from a child's speech without any interruption from the researcher.

(2)

> *Burung sedang me-lihat.*
> bird PROG ACT.TR-see
> "a bird is seeing (something)"
> ***Lalu*** *ada teman-teman-**nya**.*
> **and.then** exist friend~PL-3:POSS
> "and then come his friends"
> ***Dia****…ber-kenal-an.*
> **3SG** ACT.INTR-acquaint-INTR
> "he gets acquainted"
> *Ø men-cari makan.*
> *Ø* ACT.TR-look.for eat

Table 1 Mean and range scores of participants' production of clauses by age group

Age group	Overall mean and range scores of participants' production of clauses			
	Mean	SD	Min.	Max.
3	9.33	2.90	8	19
4	10.87	3.96	8	23
5	12.07	3.77	8	24
6	9.87	3.02	7	17

"Ø looking for food"

Ø ber-kumpul… ber-kumpul ber-empat.

Ø ACT.INTR-gather ACT.INTR-gather ACT.INTR-four

"Ø the four of them are getting together"

Ø ber-main

Ø ACT.INTR-play

"Ø playing"

Lalu *Ø ber-main sama kerbau.*

and.then Ø ACT.INTR-play with buffalo

"and then (they are) playing with a buffalo"

The segment above shows that the use of cohesive devices was diverse (conjunction *lalu* "and then," reference *dia* "he" and *-nya* "his," and ellipsis Ø), even though the story was rather short. The story was also arranged in a coherent sequence of events. It should be noted that as the child told the story, he used gestures, such as pointing to the object and turning the pages, to maintain the coherence of the story. As Wigglesworth (1990) suggested, such paralinguistic means could help children's performance in referencing.

An Overview of the Use of the Grammatical Cohesive Device

Table 2 presents the use of all grammatical cohesive devices, based on the individual scores. In this table, we present the mean and range of individual scores in each group.

Table 2 shows that the older the children were, the more grammatical cohesive devices they used. In other words, older participants were more capable of understanding the listener's needs to understand the story. The data in Table 2 show that the four-year-old children in our study ($M = 16.13$; $SD = 9.18$) tended to use more

Table 2 Mean and range scores of grammatical cohesive devices by age group

Age group	Overall mean and range scores of grammatical cohesive devices			
	Mean	Standard deviation	Min.	Max.
3	9.67	9.69	0	33
4	16.13	9.18	7	41
5	18.40	11.72	8	53
6	12.93	6.60	3	30

grammatical cohesive devices than the three-year-olds ($M = 9.67$; $SD = 9.69$). The five-year-olds ($M = 18.40$; $SD = 11.72$) were the most productive participants. Meanwhile, the six-year-old children ($M = 12.93$; $SD = 6.60$), on the other hand, used fewer devices than the four-year-old and five-year-old children. However, it was found that the oldest group in this study was able to tell the whole story properly using fewer grammatical cohesive devices. A further discussion on this finding will be presented in the following subsections.

Table 2 also shows the various range scores of individual children's use of grammatical cohesive devices. Some children did not use any grammatical cohesive devices in their stories; specifically, the youngest children (those in the three-year-old group) opted for repetition of some words. The range scores show not only the amount of grammatical cohesive device usage but also the ability of participants in each age group to create a coherent story. The six-year-old children were able to produce a coherent story without using many grammatical cohesive devices.

Grammatical Cohesive Devices in Children's Narrative Production

Several types of grammatical cohesive devices were found in the children's narratives. With regard to references, there were person references, demonstrative references, and anaphoric markers. As for ellipses, there were ellipses of words, phrases, and clauses. As for conjunctions, there were additive, order, opposition, temporal, causal, purpose, supposition, and extension conjunctions. We found instances of substitution as well. Table 3 shows all the grammatical cohesive devices found in the data. Table 3 also shows several instances of the use of grammatical cohesive devices, specifically, references and conjunctions.

Table 3 shows that there are various grammatical cohesive devices used by children. It shows that older children used more varied devices. The finding's concerning the age factor is in line with other studies (e.g., Muňoz, et al., 2003; Westerveld et al., 2004). However, variations in demonstrative references were less common in older children. This relates to elements that were referred to, omitted, or replaced in the story, i.e., the characters. This means that older participants chose not to use demonstrative references for the characters. Another difference between the five-year-olds and the six-year-olds was the referents and how they used the reference. While the five-year-olds tended to use lexical variations related to the animals or characters, the six-year-olds tended to use lexical variation related to personification. Nevertheless, both age groups tended to use lexical variations when referencing the characters.

From Table 3, it was clear that the types of references found in our data included both personal and demonstrative references. The use of *–nya* was to refer to something understood both by the speaker and the interlocutor. This is known as a script or some information about a speech's context that is shared between the speaker and interlocutor (Purwo, 1984, pp. 219–220). The finding shows an important aspect in

Table 3 Recapitulation of grammatical cohesive device usage in children's speech at 3–6 years of age in storytelling

Grammatical cohesive devices					Age			
					3	4	5	6
Reference	Personal	I	Sg	*aku* "I'"	–	–	√	–
			Pl	*kita* "we (inclusive)"	–	–	√	√
		II	Sg	*kau* "you"	–	–	√	–
				kamu "you"	–	–	√	–
		III	Sg	*dia* "s/he"	√	√	√	√
				-nya "his/her ~"	√	√	√	√
			Pl	*mereka* "they"	–	–	√	√
				*dia "s/he"	√	√	√	√
				*-nya "their ~"	–	√	–	√
	Demonstrative			*ini* "this"	√	√	√	√
				nih "this (exclamation)"	√	√	–	–
				gini "like this"	√	–	–	–
				sini "here"	–	√	–	√
				itu "that"	√	√	√	√
				tuh "there"	–	–	√	–
				gitu "like that"	√	–	–	–
				tadi (itu) "just before"	√	√	–	–
	Anaphoric marker (*-nya*)	N		*burungnya* "the bird"	√	√	√	√
				badaknya "the rhinocerous"	–	–	√	–
				kerbaunya "the buffalo"	–	–	√	–
				badannya "its body"	–	–	√	–
				bulunya "its feather"	–	–	√	–
				rambutnya "its hair"	–	–	√	–
				makanannya "its food"	√	–	–	–
				daunnya "the leaf"	–	–	–	√
				anaknya "its child"	√	√	√	√
				ibunya "its mother"		√	–	√
				kakaknya "its older sibling"	–	√	–	–
				adiknya "its younger sibling"	–	–	–	√
				ibu bapaknya "its parents"	–	–	–	√
				mamanya "its mom"	–	–	–	√
				namanya "its name"	–	–	√	–

(continued)

Table 3 (continued)

Grammatical cohesive devices				Age			
				3	4	5	6
		V	*nyarinya* "searching"	–	–	–	√
		Adj	*kecil-kecilnya* "its small ~"	–	√	–	–
		Dem	*ininya* "its ~"	–	√	–	–
			itunya "its ~"	–	√	–	–
		Pers	*dianya* "s/he"	–	–	√	–
Ellipsis	Nominal	N	*burung* "bird"	√	√	√	√
			burung-burung "birds"	√	√	√	√
			kerbau "buffalo"	√	√	√	–
			makanan "food"	√	–	√	–
			ayam "chicken"	–	–	–	√
			ayam-ayam "chicken"	–	–	–	√
			cerita "story"	–	–	–	√
		V	*melihat* "see"	√	–	–	–
			pulang "go home"	–	√	–	–
			terbang "flying"	–	√	–	–
			duduk "sit"	–	√	√	–
		Pron	*aku* "I"	–	–	–	√
			kamu "you"	–	–	–	√
		Conj	*dan* "and"	–	√	–	–
			yang "that"	–	–	√	–
	Phrasal	V	*melihat ke ...* "looking at"	√	–	–	–
			mencari makan "looking for food"	–	√	–	–
		Prep	*oleh burung* "by the bird"	√	√	√	–
			dengan burung "with the bird"	–	√	√	–
			ke atas kerbau "on to the buffalo"	–	√	–	–
			di atas kerbau "on the buffalo"	–	–	√	–
			ke tempat "to the place"	–	–	–	√
	Clausal		*burung pergi/berdiri* "standing bird"	–	√	–	–

Table 3 (continued)

Grammatical cohesive devices			Age			
			3	4	5	6
		burung bermain "playing bird"	–	√	–	–
		burung berkata "talking bird"	–	–	√	–
		burung terbang "*flying bird*"	–	–	–	√
Conjunc-tion	Additive	*dan* "and"	–	–	√	–
		sama (dan) "with"	√	√	√	–
		dengan (dan) "with"	–	–	√	√
	Order	*pertama* "first"	–	–	–	√
		lalu "and then"	–	√	√	√
		terus (lalu) "and then"	√	√	√	√
		terus akhirnya "and then"	–	–	√	–
		terus selanjutnya "and then"	–	–	√	–
		*dan (lalu) "and then"	–	–	√	√
		*kalo (lalu) "if"	–	√	–	–
		*seterusnya "and so on"	–	–	–	√
	Opposition	*tapi* "but"	–	–	–	√
	Temporal	*pas (ketika)* "when"	–	√	–	–
		*dengan (sambil) "while"	–	–	√	–
		Sambal "while"	√	–	√	√
		setelah "after"	–	–	√	–
		setelah itu "and then"	–	–	√	√
		abis (setelah) "and then"	–	√	–	–
		abis itu (setelah itu) "and then"	–	√	–	√
		tiba-tiba "suddenly"	–	–	√	√
	Causal	*karena* "because"	–	√	√	–
		soalnya "because"	–	–	√	–
	Purpose	*untuk* "to/for"	–	–	–	√
		buat (untuk) "to/for"	–	–	–	√
	Supposition	*kalau* "if/when"	√	–	√	–
		nanti "later"	√	–	–	–

(continued)

Table 3 (continued)

Grammatical cohesive devices			Age			
			3	4	5	6
		ntar (nanti) "later"	–	–	√	–
	Extension	*yang* "that"	–	√	√	√
	Substitution	*satunya* "the other one"	√	√	–	–
		yang satu "the other"	√	–	√	–
		yang ini "this one"	√	√	√	–
		yang satunya "the other one"	–	√	–	√
		yang tadi "the other one"	–	√	–	–

√: Found in data

–: Not found in data

*: (for plural characters, participant used singular pronoun and for some conjunctions, participant used "unique" conjunction)

the learning of narrative skills (see Hickmann, 2003), in terms of referential cohesion. It was evident that the children were learning how to perform a joint activity (Clark, 2009), adjusting the perspectives of both the narrator and listener, by using both gestures (such as pointing in book-reading) and linguistic elements.

There were nominal, phrasal, and clausal ellipses in the current study, but mostly there was nominal. The element omitted from the narration was mostly the character. This is in line with the finding by O'Grady (2005) that preschoolers often omit the subject or characters of a story (p. 92). According to the bottleneck theory, as proposed by O'Grady (2005, p. 92), children have limitations in producing words that have been prepared previously. The children tended to omit the name of the character that had been mentioned in the question posed by the interviewer. In this study, it appeared that the children assumed that both they and the interlocutor shared the same point of attention as they looked at the same picture. Older children showed more advanced ability in telling a story as they introduced and mentioned the character in the story.

We found that the older the children, the more varied was their use of conjunctions. This is in line with Hickmann and Hendriks' (1999) research, which revealed that the use of conjunctions is more varied since children's vocabulary increases as they grow older. Table 3 also shows that children used substitutions in referring to the characters in the book, in this case, the birds. Preschool children used not only the demonstrative pronoun *ini* "this" but also other substitutions in referring to the characters, although they tended not to use *mereka* "they" because of the use of pictures in the storytelling. For instance, while he was pointing at the object, the child also mentioned *ini* "this." In other words, the use of the demonstrative term *ini* "this" and the frequent use of substitutions, tended to occur together as replacements for characters. This finding was consistent with Colozzo and Whitely's (2014) work.

Moreover, we observed the use of kinship terms attached to the anaphoric marker –*nya* to refer to the characters. The characters thus anthropomorphized by the participants were limited to the birds, as the number of birds in the picture was more than one, as shown in (3).

(3)

> *Itu **dia, ibu-nya** terbang trus nggak ada makan-an-nya.*
>
> that 3SG mother-3:POSS fly then not exist eat-NOUN-
>
> 3:Poss
>
> "that's him, his mother fly and then the food is gone"
>
> trus **ibu-nya** terbang.
>
> then mother-3:POSS fly
>
> "and then his mother flies"
>
> *Ibu bapak-**nya** kangen sama anak-**nya**.*
>
> mother father-3:POSS miss with child-3:POSS
>
> "his parents miss their child"

As Table 3 shows, the variation for substitution using the names of family members was more common among the six-year-olds. Even so, only three of the six-year-olds used these words. We found that one child in the oldest group used all variations of reference. This study shows that these children are still learning to use references, considering that the referent of the reference is still unclear.

There were children in each group who used the singular personal pronoun *dia* "s/he, 3SG" instead of *mereka* "they, 3PL" in referring to the plural characters. This means that the third-person singular reference functions as a third-person plural reference. We found that the older groups tended to use cohesive devices to refer to unclear references. The following is an example of the use of *dia* "s/he" to refer to plural objects. The child chose the singular pronoun, but he was pointing at the flock of birds.

(4)

> *Terus **dia** cari makan lagi.*
>
> then 3SG search eat again
>
> "and then he searches for food again"

The finding is almost similar to Hudson's (as cited in Berman, 2009, p. 360), in terms of the use of unclear references, especially the use of *him,* as in the following segment.

[…]

C   : *I can't swim. But when I'm with **Daddy, he** kept putting **me** in.*

        : *I can't swim with **him either**.*

M   : ***You** can't swim with **who**?*

C   : *And **Laura** was there.*

M   : ***Laura** was there?*

C   : *Yes, and **the two of us** were stepping in the pool.*

In the segment above, it is shown that the reference *him* was used to refer to the counterpart gender. It should be noted that the subject of Hudson's study was a 26-month-old child. While the unclear reference in Hudson's study was related to gender, our study deals with a number of references. Furthermore, it was found in the group of five-year-old children. In this regard, the finding was not in line with Clark's (2009) finding that states that, at the age of five years, children already use noun and pronoun references with more clarity.

We also found several special uses of conjunctions exhibited by one child in the four-year-old group, three children in the five-year-old group, and three children in the six-year-old group. The "unique" conjunctions that are referred to here are the conjunctions that were not used according to "adult language" in Indonesian. Some of them used the conjunction *kalo* (5), "if," or the conjunction *seterusnya* (example (6)), "and so on," which functions as "and then."

(5)

    Abis nyari makan, di-cari-cari-in sama ibu-nya.

    finish search eat PASS-search~PL-TR with mother-3:POSS

    ***Kalo** burung-nya ke-tawa.*

    if bird-DEF PASS-laugh

    Burung-nya yang ini lagi ber-diri.

    bird-DEF REL this PROG INTR-stand

    "after searching for food, (the bird) is searched by his mother. **This bird** (pointing at the character) is laughing. This bird (pointing another bird) is standing"

(6)

    Terus ibu bapak-nya nyari makan buat adek-nya.

    then mother father-3:POSS search eat for younger.sibling-3:POSS

*Seterusnya *anak-nya naik banteng.*

Henceforth child-3:POSS ride buffalo

"and then the father and mother are looking for food for the brother.
And then, the child ride a buffalo"

In Table 3, the aforementioned conjunctions are marked with asterisks (*). We found that older children in this study used these conjunctions. In example (5), it is shown that the use of *kalo* "if" has the function of indicating that the child was pointing to a certain character. In spoken Indonesian, especially in an informal situation, the use of *kalo* "if" does not necessarily mean modality. It can be used to describe a certain situation that is happening while another situation is occurring; therefore, *kalo* in this context means "while" or "in the meantime." In example (6), the child mixed up *seterusnya* with *terus* whose root is the same but the meanings are different: the former is "henceforth" while the latter being "and then." The finding indicated that these children were still learning to use conjunctions in lexically and grammatically appropriate situations, as used by adult speakers. The variability of conjunction usage is in line with the increasing vocabularies of older children, regardless of appropriateness.

Correlation Between Grammatical Cohesive Devices

We found that the occurrence of conjunctions correlated with those of ellipses and references, and that the occurrence of references correlated with those of ellipses and substitutions. The following table shows the results of correlation analysis.

Table 4 shows that the use of references has a strong negative correlation with the use of the ellipsis ($r = -835$). The use of ellipses tended to increase when the use of references decreased, and vice versa. This pattern was found mainly in the youngest group. The table also shows a significant negative correlation between ellipses and substitutions ($r = -340$). The use of ellipses tended to increase when the use of substitutions decreased and vice versa. There was also a significant positive correlation between the use of references and the use of substitutions ($r = 264$). The use of references increased as the use of substitutions increased.

We found that children did not use pronouns, nouns, or names to refer to characters; instead, they tended to omit words altogether or replace them with other words, as in the following examples.

Table 4 Correlations between grammatical cohesive devices

	Reference	Ellipsis	Conjunction	Substitution
Reference		**−0.835****	0.248	**0.264***
	Ellipsis		−0.558	**−0.340****
		Conjunction		0.068
			Substitution	

* $p < 0.05$; ** $p < 0.001$ $N = 60$

(7)

   (burung) *Lagi terbang.*   ➔ Ellipsis

   (the bird) PROG fly

   "(the bird) is flying"

(8)

   Ini *sedang terbang.*   ➔ Reference

   this PROG fly

   "this (bird) is flying"

(9)

   Kakak-nya *lagi terbang.*   ➔ Substitution

   older.sibling-3:POSS PROG fly

   "his/her older sibling is flying"

(10)

   Satu-nya *terbang.*   ➔ Substitution

   one-DEF fly

   "the other (bird) flies"

Therefore, there were correlations between references, ellipses, and substitutions, such as when the children did not use pronouns, nouns, or proper names to refer to characters in the story, they tended not to mention them at all; some of them used other words, instead of pronouns, to refer to the characters.

Conclusion

In this study, it was found that children in this research used references, ellipses, conjunctions, and substitutions as rhetorical strategies for creating cohesion in narratives. The older the children were, the more varied the cohesive devices they used. Participants in each age group mostly used references and ellipses, to maintain the topic of the story, especially the characters. The question, "*Sedang apa*?" "What is/ are X doing?" by which participants were guided to explore the whole content of the book, was used as a trigger to elicit narrative production.

We have seen in many studies that the use of grammatical cohesive devices tends to be more frequent in older children. In this study, older children showed that they were more advanced in narrative production and especially in the use of cohesive devices. Yet, in terms of frequency, we found that age differences need to be explored in more depth. While there were tendencies, in other studies' findings, that the increase of reference adequacy is related to age (see, for example, Mäkinen et al., 2014; To et al., 2010), the findings in this study show a different result. The limited number of participants might be one of the explanations. This study found that young, Indonesian-speaking children have already used grammatical cohesive devices at a very young age. Nevertheless, we have found that the mastering of this skill has a long way to go. The direction we need to go is the same as other studies. Further studies and more participants are needed to confirm our findings using Indonesian data.

We found that the use of references positively correlates with the use of substitutions, while the use of both cohesive devices negatively correlates with the use of ellipses. These findings indicate that these children were already capable of using various types of cohesive devices. Nevertheless, it is strongly recommended that future studies examine the extent to which children distinguish among these devices in order to generate an overall illustration of narrative development.

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