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## **Linguistic complexity in late language development: reformulation of relative clauses**

This paper focuses on syntactic development in late language development, i.e. after the age of six, within the reformulation approach framework. Reformulation is a theoretical approach which attempts to clarify how children transform utterances they were exposed to in their language input into utterances they produce themselves. In this study the reformulation of relative clauses was observed using methodology of story retelling. A total of 90 children in three age groups: 6, 10 and 14 were included.

Besides quantitative analysis, i.e. frequencies of the relative clause reformulation, qualitative analysis, regarding the type of reformulation procedures, was carried out as well. The findings indicated that children aged 10 and 14 reformulated relative clauses with a relative clause significantly more than 6-year-olds did. The same age groups also produced semantically equivalent paraphrases more often than other types of paraphrases, which indicated their improvement in the ability to interrelate semantics and syntax in the construction of relative clauses.

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### **1. Introduction**

Although relative clauses are complex clause structures, they emerge relatively early and due to this fact most psycholinguistic studies have explored the acquisition of these structures during the first years of child language

development (see Costa et al. 2015; Beletti et al. 2012; Hakansson and Hansson 2000; Diessel and Tomasello 2000). Recent studies (see Friedmann et al. 2011; 2015) increase their focus on relative clause production in the period of late language development (regardless of the still evident theoretical dilemma about the boundary between early and late language development; see more in Kuvač Kraljević and Olujić 2015). In this paper the age of 6 – a boundary proposed by Berman (2004) – was taken as the lower limit of late language development. Therefore, the focus of this study is relative clause production in children aged 6 to 14 years. It analyses the procedures that children employ along their developmental pathway, and this analysis is performed within the framework of a specific theoretical perspective called the reformulation approach (Martinot 1994; Martinot et al. 2009).

### *1.1. Acquisition of language structures from the perspective of the reformulation approach*

Reformulation is a theoretical approach that addresses how children transfer utterances that they heard in their mother tongue into utterances they produce themselves. Reformulation emphasises the important role that language input plays in a child's language acquisition. Language input cannot, however, tell the whole story: the fact that children can produce utterances that do not merely imitate expressions they have heard before suggests that other factors contribute to the acquisition of language structures, such as the ability to reformulate one utterance into another. To identify and examine these other factors, reformulation relies on principles of transformation theory, which presumes the existence of transformation relations among clauses of the language in question (Harris 1976). Children acquire their mother tongue by transforming utterances that were addressed to them, and the transformation adheres to the following principle: in their own utterance they retain an unchanged part from the original utterance, and they combine this original part with a new part of their own creation (Ibrahim 2009; Martinot et al. 2009; Martinot 1994).

This simultaneous retention of an unchanged part and its influence on the new part defines the principles of reformulation (Martinot 1994). Children test whether their choice of co-occurrence is meaningful or not. In this way, children up to the age of 4 or 5 build their first subset of language, an inventory referred to as a “basis” (i.e. the child's new produced part combined with the unchanged part), which consists of spontaneous (free) sentences, i.e. elementary predications<sup>1</sup> (Harris 1976: 24; 2007: 36, 46). The meaning of the reformulated utterance depends not only on the difference between the unchanged and new parts but also on their interaction. Then, after the age of 4 years approximately, children draw on their basis of elementary predications

1 The idea of predication relies on Harris' (1976) theory that language is made up of discourses (grammatically more or less well-formed clauses) rather than words, and that discourses are related to one another via paraphrastic transformations. For additional information about predication and predicate structures, see Ibrahim (2009).

to build simple sentences. These sentences come together to form another language subset, which Harris denominates as paraphrastic transformations. From that point onwards, children begin to produce more complex utterances.

After the age of 6 years, language acquisition continues via the application of new procedures to reformulate previously acquired utterances into more complex utterances, including those similar to complex adult utterances (Martinot 1994; 2010). Three quite different reformulation procedures have been described (Martinot et al. 2012):

### 1. Repetition

The child can repeat the original utterance identically or nearly so. In this case, the reformulated utterance differs minimally from the original utterance.

(1)<sup>2</sup>

OU: Za ruku je držala djevojčicu koju još nitko nikada nije vidio.

She was holding the hand of a little girl whom nobody had seen before.

RU: Za ruku je držala curicu koju nitko nikada nije vidio.

She was holding the hand of a little girl whom nobody had seen before.

### 2. Change in meaning

The child can change the original utterance by giving a different meaning to the reformulated utterance. The constructions or the lemma usually change but they can also remain the same<sup>3</sup>, though this seldom occurs in Croatian because of its rich morphology.

(2)

OU: Tog je jutra učiteljica stigla u školsko dvorište kasnije nego obično.

That morning, the teacher arrived in the schoolyard later than usual.

RU: Tog jutra učiteljica je stigla u školu ranije nego inače.

That morning, the teacher arrived in school earlier than usual.

### 3. Paraphrase

The child can change the original utterance while preserving its meaning, producing an utterance semantically equivalent to the original one. This type of reformulation involves semantic, formal, explicative and/or definitional paraphrase (Ibrahim 2007, Martinot 2014), depending on whether the lexis and/or the construction is modified.

#### 3a) Semantic paraphrase

Semantic paraphrase is a reformulation procedure that preserves the meaning of the original utterance, but not the lexis or construction.

2 The following examples of reformulation were taken from a corpus of recordings of Croatian-speaking children aged 6 to 14 years.

3 An example in Croatian would be the sentence *Dijete gleda pile # Pile gleda dijete*. A corresponding example in English would be *The boy watches the girl # The girl watches the boy*.

(3)

OU: Za ruku je držala djevojčicu koju još nitko nikada nije vidio.  
She was holding the hand of a little girl whom nobody had seen before.

RU: Držala je za ruku jednu djevojčicu koju nitko nije poznavao.  
She was holding the hand of a little girl whom nobody knew.

### 3b) Formal paraphrase

Formal paraphrase is a reformulation procedure that preserves the lexis and meaning of the original utterance, but not its (4) construction (paraphrase by transformation) or (5) structure (paraphrase by restructuring).

(4)

OU: Otkri komad papira na kojem je Julija bila napisala.  
...discovered a piece of paper on which Julie had written.

RU: Otkri komad papira na kojem je bilo napisano od Julije.  
...discovered a piece of paper on which it [the message] had been written by Julie.

(5)

OU: Za ruku je držala djevojčicu.  
She was holding the hand of a little girl.

RU: Držala je ruku djevojčice.  
The hand she was holding belonged to a little girl.

### 3c) Explicative paraphrase

Explicative paraphrase includes various reformulation procedures, all of which assume that semantic equivalence depends on context and so cannot be explained independently of context. In this way, explicative paraphrase differs from semantic paraphrase. In this type of utterance, the speaker (child) tries to explain to herself or to the listener her understanding of the original utterance, often leading her to introduce cause, consequence, or a different point of view.

(6)

OU: Učiteljica je toga jutra stigla u školsko dvorište kasnije nego obično.  
Za ruku je držala djevojčicu koju nitko nikada nije vidio.

One morning, the teacher arrived in the schoolyard later than usual. She was holding the hand of a little girl whom nobody had seen before.

RU: Jednog dana došla je nova učenica u školu.  
One day a new student arrived in school.

### 3d) Analytic paraphrase

In analytic paraphrase the speaker provides an analytic definition of the key word from the original utterance.

(7)

OU: Čim ju je *spazio*, uputio se prema djevojčici.

As soon as he *noticed* her, he went to her.

RU: Kad ju je *vidio da dolazi*, došao je do nje.

When he *saw that she was coming*, he came to her.

## 1.2. Relative clauses

Acquisition of relative clauses in early and late language development has been the subject of intense research. Relative clauses are mainly considered as part of complex sentences, which consist of a main (independent) and subordinate (dependent) clause<sup>4</sup>; the speaker needs to semantically and syntactically coordinate the main clause and the relative clause. The relation between the antecedent and the relative clause can be grammatically complex for several reasons. First, the actor in the relative clause often differs from that in the main clause. In contrast to other dependent clauses, the relative clause refers to a noun antecedent, not a verb. Second, the relative pronoun simultaneously plays three roles: (1) as subject or filler verb in the relative clause, (2) as conjunction between the main and relative clauses and (3) as anaphoric pronoun of the antecedent. Third, the semantic relationship between antecedent and relative clause depends on whether the relative clause is restrictive or non-restrictive (Martinot et al. 2012: 171). Fourth, relative clauses can take on complex structures that make them difficult to reformulate, such as when they contain a metaphor or operational verb followed by another relative clause.

The keen research interest in acquisition of relative clauses arises in part from the observation that it does not follow the typical developmental rule that understanding precedes production (for additional information, see Balija et al. 2012). This has been confirmed in early language development in English (de Villiers et al. 1994), Swedish (Hakansson and Hansson 2000) and Hebrew (Friedmann and Novogrodsky 2004). Furthermore, even though relative clauses occur often in the input language, children acquire them relatively slowly (Friedmann et al. 2011). Diessel and Tomasello (2000) explored the frequency of relative clause production by children in English and German. They found that children first produce the types of relative clauses that they hear more often; they produce other clauses later and with more difficulty. These findings support the importance of language input for language acquisition, including the acquisition of complex language structures such as relative clauses.

The reformulation approach stipulates that children use different procedures, more or less complex, to reformulate relative clauses that they hear in their environment. This was confirmed and analysed in the recent cross-lan-

4 This view of relative clause as dependent clause is not generally adopted in the literature. In line with Harris's theory, the reformulation approach to language acquisition (e.g. Martinot et al. 2009) does not consider relative clauses as dependent because the subordination relationship involves not two clauses but rather a noun and a clause. In other words, the relative clause is subordinate to the antecedent – not the verb – in the main clause. Nevertheless, scholars agree that the relative clause is a complex linguistic phenomenon.

guage research project *Acquisition et reformulation*, which examined relative clause reformulation in French, German, Italian, Romanian and Croatian by children aged 4, 6, 8 and 10 years (Bošnjak Botica and Kuvač Kraljević 2010; Martinot et al. 2012). The results show that relative clauses emerge in the period of early language development (before the age 6) in various languages. German-speaking children produced the fewest relative clauses and Romanian-speaking children the most. French-speaking children began using relative clauses quite early and often, whereas Italian-speaking children preferred using alternative structures such as adjectives to synthesise the information in the relative clause.

The results of this previous research highlighted the importance of relative clauses in many languages from an early age and identified substantial differences among language groups. The present study aimed to extend these findings by focusing on the Croatian language. According to the Croatian Adult Spoken Language Corpus (Kuvač Kraljević and Hržica 2015), 1% of all produced syntactic structures in spontaneous conversation among adult speakers are relative clauses. Although relative clauses are not very frequent in spoken language, they are present in language input in part because they could rarely be replaced by alternatives, such as participles, gerunds and infinitives (Kordić 1992: 151). Since previous work on acquisition of relative clauses looked at subjects only up to the age of 10 years, the present study aimed to investigate language complexity of relative clauses up to the age of 14. This work addressed the following questions:

Does the frequency of reformulation of relative clauses vary with age in Croatian-speaking children?

Do the most frequently used reformulation procedures vary with age in Croatian-speaking children?

## 2. Method

### 2.1. Participants

A total of 90 school-age subjects aged 6, 10, or 14 years (30 subjects per group) participated in this study on the features of linguistic complexity in late language development. These groups corresponded to preschool, grade 4–5, and grade 8. Typical monolingual language development was the main inclusion criterion. In each group, approximately half the participants were girls and half were boys. Between January and April 2014, children were randomly selected in one preschool (“En ten tini”, Novi Jelkovec, Croatia) and the elementary schools “Vukovina” and “Juraj Habelić” (Velika Gorica, Croatia). The principals of the institutions as well as parents gave written informed consent for the children to participate in the study.

## 2.2. Material

The story “Tom and Julia” was used in this study. “Tom and Julia” is divided into 14 sequences, each defined by 1–4 sentences. The division of the story into sequences does not reflect its syntactic or semantic complexity; it serves merely to facilitate references to story structure during analysis and discussion. The story talks about a boy Tom and a girl Julia, who is a new student in Tom’s class, and about their adventures together in the forest.

This story was created as part of the project *Projet interlangue sur les acquisitions tardives en langue maternelle: Acquisition et reformulation* at Paris Descartes University, which was precursor to the project *Acquisition de la complexité linguistique de 6 à 14 ans* launched in 2013 at Paris–Sorbonne University. The story has been translated into all languages included in the project: French, German, Italian, Romanian, Polish, English and Croatian. During translation, syntactic structures were controlled in order to ensure a degree of complexity as similar as possible in all languages, while taking into consideration the specific features of each language. The study presented here was completed within the framework of the 2013 project.

## 2.3. Procedure

The children were tested individually. First, the examiner read the story to the child and then the child was asked to retell the story as closely as possible to the original. The child’s narrative production was recorded and transcribed.

A total of eight relative clauses are present in six of the 14 sequences: 1, 4, 6, 11, 12 and 13. Each of these sequences contains one relative clause, except sequence 13, which contains three. The relative clauses are shown in boldface type below:

### Sequence 1

Tog je jutro učiteljica stigla u školsko dvorište kasnije nego obično. Za ruku je držala djevojčicu **koju još nitko nikada nije vidio**.

One morning, the teacher arrived in the schoolyard later than usual. She was holding the hand of a little girl **whom nobody had seen before**.

### Sequence 4

Sutradan ujutro u školskome dvorištu Tom iščekivaše dolazak svoje nove susjedice. Čim ju je spazio, uputio se prema djevojčici i pružio joj kutiju **koju je bio izradio za nju prethodne večeri**.

The next morning, in the schoolyard, Tom was waiting for his new little desk partner to arrive. As soon as he saw her, he went to her and held out the box **that he had made for her the previous evening**.

#### Sequence 6

Jednoga dana Julija šapne Tomu: "Otvori kutiju!" Tom podiže poklopac i otkri komad papira **na kojem je Julija bila napisala**. "Čekam te večeras u 8 sati ispod velikoga stable na ulazu u šumu".

One day, Julie whispered to Tom: "Open the box!" Tom lifted the lid and discovered a piece of paper **on which Julie had written**: "Meet me this evening at 8 o'clock under the big tree at the edge of the forest."

#### Sequence 11

Odjednom, deblo se otvori, a djecu zabljesnu svjetlost **koja je preplavljivala unutrašnjost stabla**. Načinili su nekoliko koraka i stablo se zatvori za njima.

Suddenly, the trunk opened, and the children were dazzled by the light **that filled the inside of the tree**. They took a few steps in, and the tree closed behind them.

#### Sequence 12

Tom i Julija nadoše se u jednom prekrasnom vrtu **gdje se činilo da cvijeće međusobno razgovara pjevajući**.

Tom and Julie found themselves in a magic garden **where the flowers seemed to be speaking to each other as if they were singing**.

#### Sequence 13

Tom je odgovorio: "Želim naučiti razgovarati s pticama **koje znaju sve što se zbiva na nebu**, s ribama **koje znaju sve što se zbiva u vodi** i s mravima **koji znaju sve što se zbiva na zemlji**".

Tom answered: "I want to learn how to speak to the birds, **who know everything that happens in the sky**; with the fish, **who know everything that happens in the water**; and with the ants, **who know everything that happens on the ground**."

### 3. Results and discussion

The two study questions were addressed through qualitative analysis as well as quantitative analysis of the frequencies of relative clause reformulation and frequencies of different reformulation procedures in the different age groups.



3.1. Quantitative analysis of relative clause reformulation

First the main descriptive statistics were calculated (Table 1).

Table 1. Descriptive statistics for all three age groups on all three dependent variables.

Age group	N	Non-reformulated clauses				Reformulated clauses							
		Min	Max	M	SD	Relative clauses				Other syntactic structures			
		Min	Max	M	SD	Min	Max	M	SD	Min	Max	M	SD
6 years old	30	3	8	5.53	1.79	0	4	0.70	1.11	0	5	1.76	1.63
10 years old	30	1	7	3.63	1.92	0	6	1.6	1.63	0	6	2.70	1.68
14 years old	30	1	7	4.50	1.77	0	5	1.53	1.53	0	5	1.96	1.47

The mean values of the dependent variables in Table 1 show that the number of reformulated clauses increased with age. Children in the youngest age group had the highest number of non-reformulated clauses, and this number decreased with age. The number of reformulations with a relative structure increased with age, consistent with a previous study in French, Italian, Romanian and Croatian in children up to 10 years (Martinot et al. 2012). At the same time, the children reformulated more often using other (non-relative) structures in all three age groups. This probably reflects the complexity of the relative structure, which is therefore used less often by children in the four abovementioned languages. The Croatian children in our study appeared to choose which relative clauses to reformulate based on their role and relevance in the story: children in all three age groups reformulated relative clauses that were more relevant to the story (sequences 1, 6 and 13).

The Mann-Whitney U test was applied to all possible pairwise comparisons among the three age groups in order to assess differences in the frequencies of relative clauses. This analysis indicated that the mean frequency of relative clauses in the youngest group was significantly smaller than the mean frequencies in the two older age groups.

Table 2. Mann-Whitney U test comparing production of relative clauses by different age groups.

Age comparison	U	W	Z	p
6 vs 10	296.00	761.00	-2.425	.015
6 vs 14	244.500	709.500	-3.205	.001
10 vs 14	431.500	896.500	-.283	.777

Data in Table 1 determined to be significant in Table 2 are shown graphically in Figure 1.

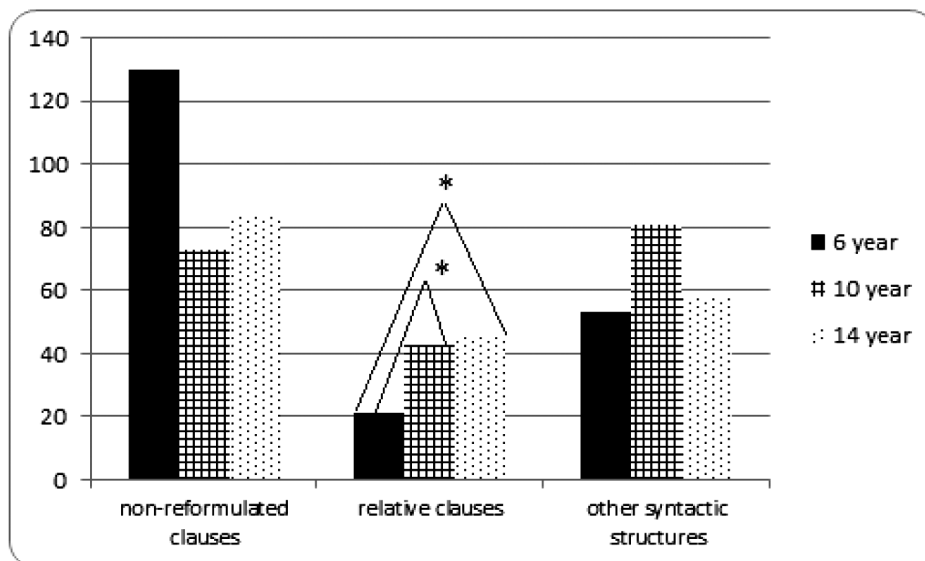


Figure 1. Frequencies of non-reformulated structures and structures reformulated into relative clauses or other syntactic structures by each age group.

In order to reformulate relative clauses, children in all age groups more often reverted to other, less complex syntactic structures. This is consistent with a similar study in French (Martinot et al. 2012) and supports the idea that relative clauses are not a frequent structure in the spoken language of children and youth, who often replace them with simpler structures. In our study, relative clauses were often replaced with simpler dependent clauses, mostly object clauses and clauses of purpose; less often they were replaced with independent and simple clauses. The choice of simpler structure to replace the relative clause appeared to be related to the meaning conveyed by the relative clause:

OU: Tom je želio naučiti razgovarati s pticama koje znaju sve što se događa na nebu...

Tom wanted to learn how to speak to the birds who know everything that happens in the sky...

RU: 30 (14) Tom je htio da može razgovarati s pticama da zna što se događa na nebu...

Tom wanted to be able to speak to birds so that he would know what happens in the sky...

RU: 27 (10) Tom je rekao da želi pričati s pticama što se događa na nebu...

Tom said that he wanted to talk to birds about what happens in the sky...

OU: Tog je jutra učiteljica stigla u školsko dvorište kasnije nego obično. Za ruku je držala djevojčicu koju još nitko nikada nije vidio.

That morning, the teacher arrived in the schoolyard later than usual. She was holding the hand of a little girl whom nobody had seen before.

RU: 23 (14) Jednoga dana učiteljica je došla s novom učenicom u školu. One day, the teacher arrived in school with a new student.

### 3.2. Reformulation procedures

The types of reformulation were studied in order to clarify how subjects reformulated relative clauses into (a) other relative clauses, or (b) another syntactic structure.

#### a) Relative clause production

The frequencies of certain procedures for reformulating relative clauses into other relative clauses differed across the three age groups (Figure 2).

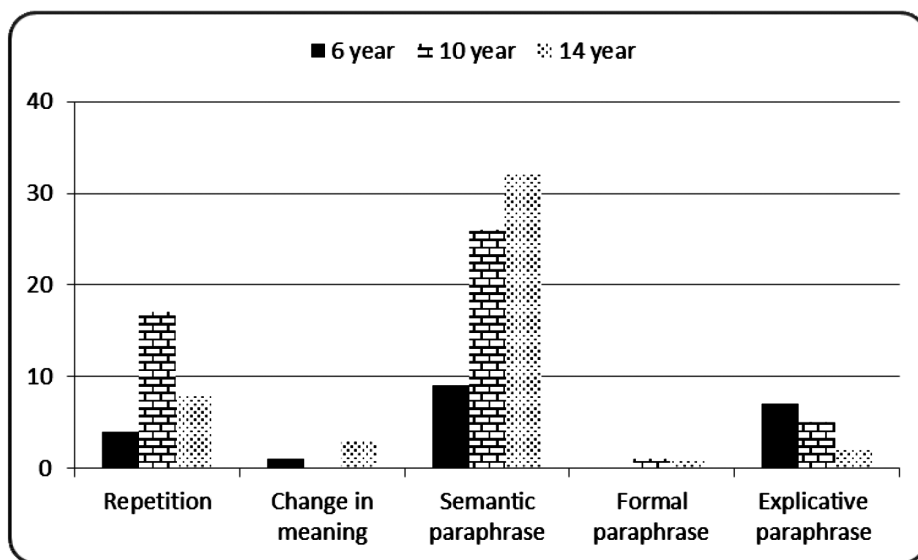


Figure 2. Frequencies of different procedures to reformulate relative clauses into relative clauses in different age groups.

The frequency of reformulations of relative clauses into relative clauses was significantly higher among 10-year-olds (43) and 14-year-olds (46) than among 6-year-olds (21) (Table 2). The group of 10-year-olds relied on repetition more than the other two groups; they often imitated the original utterance without any changes to syntax or lexis. The group of 14-year-olds, in contrast, relied less on repetition and more on semantic paraphrase than the 10-year-olds. This suggests that 14-year-olds rely to a greater extent on

reformulation procedures that are more sophisticated than repetition, which presumably reflects their greater ability to alter the lexis and structure of the original utterance while preserving the original meaning. Younger children relied to a greater extent than older children on explicative paraphrase, which allowed them to simplify the original utterance by explaining the content of the relative clause with the help of story content (e.g. OU: ...djevojčicu koju još nitko nikada nije vidio /...girl whom nobody had seen before... RU: Došla je nova učenica u školu / A new student arrived in school). The frequency of explicative paraphrase decreased with age, as older children relied to an increasing extent on syntactically more complex procedures.

In all three age groups, paraphrase was dominant, with semantic paraphrase the most frequent procedure. This reflects the ability of children to manipulate the original utterance lexically while preserving the information. Change in meaning and formal paraphrase were rare across all three age groups, suggesting that when children reformulated relative clauses, they rarely changed only the structure of the utterance. This is consistent with the fact that the Croatian language does not easily accommodate alternatives to relative clauses such as the participle, gerund, or infinitive (Kordić 1992).

*b) Relative clauses reformulated into another syntactic structure*

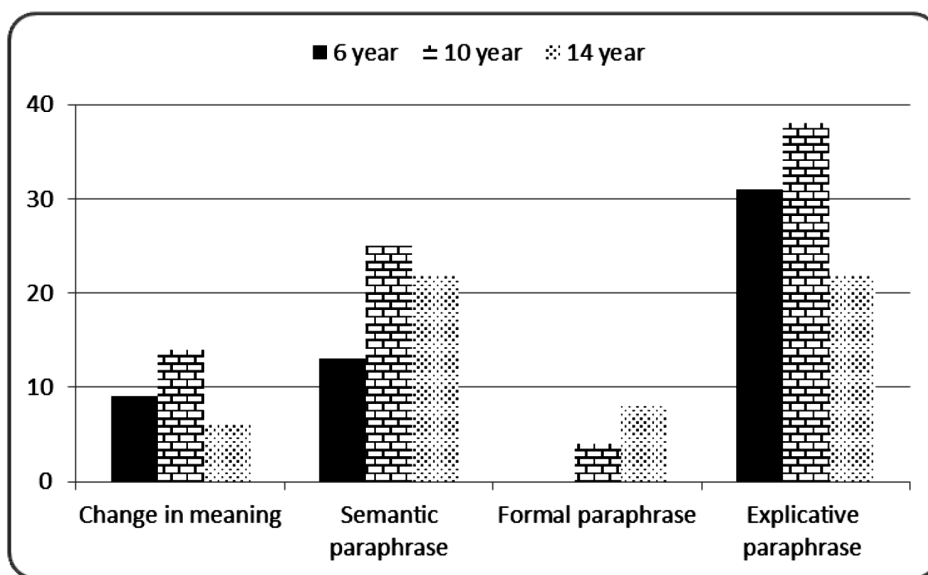


Figure 3. Frequencies of different procedures to reformulate relative clauses into other syntactic structures in different age groups.

When reformulating relative clauses into other syntactic structures, 10-year-olds produced more clauses (81) than 6-year-olds (53) and 14-year-olds

(58). In all three age groups, explicative and semantic paraphrases were produced most often, while changes in meaning and formal paraphrases were produced to a lesser extent (Figure 3). At the same time, the frequency of formal paraphrases increased with age, while changes in meaning decreased. In other words, 14-year-olds relied less on explicative paraphrases, probably reflecting their greater syntactic proficiency. They also produced fewer changes in meaning, indicating that they were more successful at reformulating the original utterance and made fewer mistakes when they made new constructions. These results likely reflect the fact that reformulating relative clauses with other syntactic structures requires greater lexical proficiency and precision in order to avoid changing the meaning, which makes it a difficult procedure for younger children.

#### 4. Conclusion

The reformulation approach stipulates that beyond the age of 6 years, children begin to use new procedures to reformulate previously acquired utterances, which allows them to produce more complex utterances. To test this idea up to the age of 14 among native Croatian speakers, we analysed the reformulation of relative clauses in children aged 6, 10 and 14. Our results suggest that acquisition of relative clauses is not merely the creation of an inventory of clauses that begin with a relative pronoun. Instead, it may be a process occurring in stages beginning with the absence of any form of reformulation and progressing to reformulation of a relative clause with another language structure, such as another type of dependent clause or simply an adjective, and finally reaching the stage of reformulation with a relative clause.

Children aged 10 and 14 in our study reformulated significantly more relative clauses with a relative clause than 6-year-olds did. These reformulations were usually semantic paraphrases and less often repetition among 10- and 14-year-olds, while they were usually explicative paraphrase (e.g. change in point of view) and semantic paraphrase among 6-year-olds. All three age groups rarely relied on changes in meaning or formal paraphrase, which likely reflects the nature of the Croatian language.

When children reformulated relative clauses into other syntactic structures, 6- and 10-year-olds relied mostly on explicative paraphrases and to a lesser extent on semantic paraphrases and changes in meaning; 14-year-olds, in contrast, more often used explicative and semantic paraphrases and less often formal paraphrases and changes in meaning.

The use of repetition in relative clause production indicates that even 6-year-old children do not have problems with formal acquisition of this structure. The dominance of semantic paraphrase in reformulation into a relative clause by relative clause suggests that children understand the content and that they are prepared to produce it using other lexical means. The dominance of semantic paraphrase in the production of other structures indicates that children can capture the meaning of the relative clause using other structures, such as the

adjective *new* to express the original “whom nobody had seen before” in the relative clause in sequence 1, or the simpler impersonal verb form *na kojem piše* to replace the personal form “on which Julia had written” in sequence 6. The frequency of explicative paraphrase in the production of other structures shows the influence of a child’s own interpretation in transmitting the original meaning of the relative clause. This is visible, for example, in the production of clauses of purpose and causal clauses in reformulations of sequence 13.

Taken together, our results suggest that as children grow older, they use relative clauses more often, but they also produce semantically equivalent paraphrases more often. This suggests that as they age, children not only use relative pronouns more often, but they also improve in their ability to interrelate semantics and syntax, allowing them to reformulate relative clauses without changing the meaning.

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*Lingvistička složenost u kasnom jezičnom razvoju:  
reformuliranje odnosnih rečenica*

Rad je usmjeren na sintaktički razvoj u razdoblju kasnoga jezičnog razvoja, tj. nakon šeste godine u okviru reformulacijskoga pristupa. Reformulacija je teorijski pristup koji teži rasvjetljavanju pitanja kako djeca transformiraju iskaze kojima su izložena u svom ulaznom jeziku u iskaze koje sama proizvode. U ovom radu analizira se reformulacija odnosnih rečenica primjenom metode prepričavanja priče. Ukupno je bilo uključeno 90 djece iz triju dobnih skupina: 6, 10 i 14 godina.

Uz kvantitativnu analizu, odnosno frekvenciju reformulacije odnosnih rečenica, provedena je i kvalitativna analiza s obzirom na vrstu provedene reformulacijske procedure. Rezultati pokazuju da djeca u dobi od 10 i 14 godina reformuliraju značajno više odnosnih rečenica odnosnom rečenicom nego djeca u dobi od šest godina. Iste dobne skupine proizvele su i više semantički podudarnih parafraza, što upućuje na napredovanje u njihovoj sposobnosti usklađivanja semantike i sintakse u konstrukcijama odnosnih rečenica.

**Keywords:** reformulation approach, reformulation procedures, relative clauses, syntactic development, late language development

**Ključne riječi:** reformulacijski pristup, reformulacijske procedure, odnosne rečenice, sintaktički razvoj, kasni jezični razvoj