

UDK 811.163.42'276.3-053.5

811.163.42'367

Izvorni znanstveni rad

Rukopis primljen 20. XII. 2021.

Prihvaćen za tisak 25. III. 2022.

doi.org/10.31724/rihjj.48.1.9

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CAUSALITY IN CHILDREN'S ORAL AND WRITTEN NARRATIVE RETELLING

One of the main prerequisites for understanding and producing coherent oral discourse or written text is successful understanding and production of causal relations. During both production, children have at their disposal a wide range of linguistic modes to mark it, some of which are more explicit and others more implicit.

In this study, retelling was used as a method to elicit narratives that served as a tool for analysing causal relations. Retelling enables exploring the linguistic reformulation of the syntactic structures of a previously stored story and the analysis of the overlap between the language content which child is exposed to (language input) and the language that child produces (language output). Two groups of children, aged 10 (N = 23) and 12 (N = 30), were exposed to the story at two time points; in the first they had to retell it orally and in the second they had to write it.

The conducted analyses showed that 12-years old children produced in total more causal relations than 10-year-old in written modality only. This difference is explained by the greater writing competence of 12-year-old children in the production of more complex syntactic structures. Furthermore, both groups of children in both modalities dominantly used the same causal markers that are primarily grammatical. All these findings point to the children's ability to reformulate causal relations regardless of the language content to which they were previously exposed.

1. Introduction

Oral narratives provide the foundation for pragmatic and literacy development (Brown et al. 2014). Children who understand and produce different types of narratives participate more effectively in classroom discourse and become more competent readers and writers (Green and Klecan-Aker 2012). The success of narrative performance traditionally has been evaluated on two levels: microstructural which stands for any linguistic devices incorporated in the narrative and macrostructural which refers to the general organization of narrative (Petersen 2011). This study is exclusively oriented towards the microstructural level analysing the linguistic expression of causal relations and specific types of causalities.

There are two basic story elicitation methods: story generation and retelling. Story generation involves storytelling without a previous model, whereby different types of elicitation can be used (e.g., one picture or series of connected events illustrated with a bigger number of pictures, or the participant may be requested to produce a fictional story, Westerveld 2007). Retelling tasks always include a model (e.g., the participant first hears a story and immediately afterwards he/she is asked to repeat the story). This skill requires a set of additional demands such as the possibility to keep parts of the story in the correct timeline, recollection of those parts from memory, and the possibility of linguistic reformulation. In addition to child's ability to memorize the story, oral narrative prompts also show the child's ability to cope with spatial-temporal and perspective changes (cf. Aksu-Koç and Aktan-Erciyes 2018: 331).

Kuvač Kraljević et al. (2020) analysing the story generation and retelling skills in 6-years-old children found that the type of elicitation had a significant influence on the success of narrative performance on a macrostructural level; children produce more story structure components in the retelling than in the story generation condition. Consequently, as children use more macrostructural components, they produce more elements from microstructural level such as larger number of T-units or words per clause (Green and Klecan-Aker 2012). Starting from this evidence, narrative data collected in this study is based on a retelling method observing children's linguistic reformulation of the syntactic level.

The written modality is an additional source of empirical evidence on narrative and additional method for examining a child's pragmatic skills. Namely, several studies (Berman and Verhoeven 2002; Scott 2020) suggest that students first gain proficiency in producing narrative texts, followed by expository, and then persuasive writing. Young writers must learn to control linguistic devices and structure organization to produce coherent written text (McCutchen 2011). According to Berninger, Fuller and Whitaker (1996) this control is developed between 9 and 12 years of age, which was the inclusion criteria in this study for participants selection.

Using retelling as a basic method for eliciting narratives, we want to investigate more closely a direct input–output interface i.e. the overlapping between language content that child is exposed to and language that is produced by the child. The importance of the language input in child language acquisition has been emphasised in many studies (Tomasello 2002, 2003). However, the fact that children can produce utterances that do not merely imitate expressions they have heard before, suggests that other factors such as the ability to temporarily store and reformulate one utterance into another (cf. Kuvač Kraljević et al. 2016; Martinot et al. 2019) contribute to the child's syntactic development.

2. Causal relations

The causal relationship in understanding and producing narrative texts is important because it allows for the integration of the macrostructural (hierarchical organization) and microstructural level (usage of linguistic means) of the story (Berman and Slobin 1994; Hickmann 2003). The most studied cohesive mechanisms in children's narratives are the use of conjunctions for temporal and causal connectivity (Aksu-Koç and Aktan-Erciyes 2018: 340). During language development, children learn how to express this type of coherence relation, that is, to set up a consequence/effect-causing relation between contents in a discourse. It has been shown that this ability changes from early preschool through school age (Kupersmitt, Yifat and Blum-Kulka 2014; Fichmann et. al. 2017). For example, children first acquire the less complex connectives such as *and*, *then* and only later start to produce the linguistically more complex *because*,

but, however (Evers-Vermeul and Sanders 2009). All that implies that causal relations differ with respect to their level of complexity (Sanders and Sweetser 2009; Van Veen 2011).

Language in general displays diverse means for expressing causal relations that are more or less formally marked. The expression of these relations can be made by means of language specific, that is, more explicit, and non-specific, that is, less explicit causal markers. The most explicit causal markers are connectives, i.e. certain conjunctions or adverbs that serve as connectors between two clauses. According to Abel and Hänze, text can be considered as causally cohesive if the causal relations between propositions, clauses, and sentences are explicitly marked by connectives (Abel and Hänze 2019: 2). The expression of causality through connectives is shown in example (a).

Less explicit causal markers expressed by certain aspectual marks and constructions, prepositional phrases or even certain lexicon choices (cf. Duque 2014) are shown in example (b). Nevertheless, causal relations can be expressed implicitly, without any overt grammatical or lexical marker (Gross and Nazarenko 2004) as it is shown in example (c).

(a) Tom je bio sretan **jer** je mislio da će steći novu prijateljicu.

Tom was happy **because** he thought he would get a new friend.

(b) Tom je bio sretan **misleći** da će steći novu prijateljicu.

Tom was happy **thinking** he will get a new friend.

(c) Tom je bio sretan. Steći će novu prijateljicu.

Tom was happy. He will get a new friend.

There is a lack of research on this phenomenon in the Croatian language. Mamluca and Trtanj (2018) have confirmed the use of causative compound sentences in narrative texts produced by children at the age 8 to 10. Košutar and Hržica (2021) investigated the causal usage of the connective *i* ('and') showing its increase in children from 4 to 8 and decrease in children aged 10, which assume the increase of other, more specific causal markers in older children.

In line with some previous studies (e.g. Halliday 1985; Crowhurst 1991; Bartsch 1997), we expect more text markers to appear in written modality.

Assuming that these different kinds of markers could be related to complexity in understanding and producing causal relations in children's language development, we propose their categorization into five types, starting from the least marked to the most marked. The categorization is described in the section 4.2 Materials.

3. Aims and hypotheses

The purpose of this study is to investigate how children express the casual relations in the story to which they have just been exposed. Specifically, we are interested to explore most dominant type of causalities during the reformulation of causal sequence with respect to the age (10- and 12-age) and modalities (oral vs. written). Therefore, two hypotheses are addressed:

H1: There is a difference in production of causal relations in oral and written production between and within the ages; 12- and 10-years-old children produce more causal relations in written modality than in oral; 10-years-old children in total produce less causal relations in both modalities than 12-year-old children.

H2: The explicit causal marker is the most dominant type of causalities in the older group (12-year-old) in both modalities; 10-year-old children produce more other, less explicit causal markers.

4. Method

4.1. Participants

Two groups of children are included in the study – 23 children at the age of 10 and 30 children at the age of 12. All children are native speakers of Croatian with a typical language development. At the time of collecting children's narrative samples, the children were attending primary school – the younger group belonged to the 4th grade and the older group to the 6th grade.

4.2. Material

In this study the story *Tom and Julia* was taken as a stimulus for investigating linguistic reformulations of causality. The story is originally written in French by Martinot (2003) and then translated into Croatian respecting the specifics of the Croatian language (Andel et al. 2003), but at the same time trying to keep it as similar as possible to the original version (more about story adaptation see in Bošnjak Botica et al. 2019a). Using a single story allows for better control of independent variables in cross-linguistic comparative research (e.g. Martinot et al. 2019).

The Croatian version of the story consists of 341 words, and it is divided into 14 sequences (see *Appendix*). This division in sequences facilitate identification of the reformulations made by the children. The story is about a boy and a girl, the latter is new in school, and their adventure in the woods. The plot of the story is culturally appropriate for the European context. The text that is read by examiner is comprehensible for young children (from 4 years of age) and thematically still interesting for children of 14 years of age what is confirmed in other studies (Bošnjak Botica et al. 2019b; Kuvač Kraljević et al. 2016). Linguistically, the story contains many various grammatical and/or semantic phenomena, which allows a significant number of analyses to be conducted in a particular language or cross-linguistically. The Croatian version of the story contains a total of twelve causal relations (see *Appendix*) expressed through five specific ways of marking causality. The relationship between two clauses where one represents the *cause* and the other represents the *effect* or the *consequence* of it, can be analyzed based on two predictions. These relations can be schematized as follows:

A because B > B therefore A

where A and B designating the predications linked by the causal relation. The causal relation from the text is confirmed only if it is reversible.

Following five types of causality (similar approach see in Pit 2003) are included:

Type 1 (T1) SEMANTIC LINK ONLY (seq. 3.2; 5.2; 9-10; 9-11)

Djevojčica pokuca tri puta o deblo velikoga stabla (...). Stablo se otvori.

*Girl **knocked** 3 times on the trunk of the big tree (...). The tree **opened**.*

Here, the relation between the cause and the effect is based only on the semantic condition that supposes the realisation of the second event (opening of the tree because someone knocked). There is no grammatical or lexical indication for causality.

Type 2 (T2) VERBAL MARKERS OF TIME/ASPECT/MODALITY (seq. 2)

*Mjesto pokraj tebe **je** slobodno. Julija **će biti** tvoja susjeda.*

*Place next to you **is** free Julie **will be** your neighbor.*

The relation between the cause and the effect is realised through the values of tenses that imply the causative succession. It can be also realised by using different aspect or modality.

Type 3 (T3) GRAMMATICAL MARKER NON-SPECIFIC TO CAUSALITY (seq. 3.1; 5.1; 11; 13)

*Želim naučiti razgovarati s pticama **koje** znaju sve što se događa na nebu...*

*I want to learn to speak with birds **who** know all about what happens in the sky...*

In this type of marking, two predictions (contents) are related through a grammatical marker that is not typically intended for causality. Usually these are other connectives (conjunctions, pronouns, adverbs etc.) that in a particular context can also display a causative relation. In the example above it is a relative pronoun.

Type 4 (T4) LEXICAL MARKER (seq. 13-14)

*I od toga dana Tom je **postao** vrlo pametan dječak.*

From that day on Tom **became** an extremely wise child.*

The relation between the cause and the effect is expressed by usage of a specific lexeme. Here, the verb *postati* 'to become', announce the effect of the event in the previous sequence (Tom wanted to learn to speak with the birds who *know everything* about the sky... > since Tom was able to talk to the birds, he knew everything about the sky > he became very smart).

Type 5 (T5) EXPLICIT CAUSAL MARKER (e.g. *because, therefore*) (seq. 7)

*Tom se malo bojao **jer** mu bijaše zabranjeno ići u šumu.*

*Tom was a little scared **because** he was not allowed to go into the forest.*

Explicit causal markers are specific conjunctions or adverbs dedicated to express a causal relation. The most prominent are: *jer, zato što* ‘because’, *budući da* ‘since’, *s obzirom na to da* ‘regarding, since’, *stoga, zato* ‘therefore’. Their usage is conditioned by the order of the two elements (cause > effect or effect < cause).

4.3. Procedures

Since this study involves children, the ethical approval was issued by the Faculty of Education and Rehabilitation Sciences of University in Zagreb. Prior to participation, informed consent was obtained by their parents or legal guardians.

All children were tested individually in a quiet room in the mainstream school at two time points. In the first, the children listened to the story, and immediately afterwards they had to tell it orally. In the second, two weeks later, the same procedure was carried out, but this time the children had to retell the story in written form. In both conditions - orally and written retelling – there were no time limitation for children performance. Children’s narrative performance was recorded and subsequently transcribed.

It is worth mentioning that oral (usually small, mostly spontaneous conversation) and written (large, mostly planned texts, different genres) corpora are very rarely (if ever) well balanced. That is, it is hard to accomplish the two being equally represented in terms of size, genre, type, etc., which is important when arguing about differences between the written and the spoken language (Bartsch 1997). Research made in this paper, based on a narrative retelling of the same story in very similar conditions, enables better balance between the two corpora and more reliable outcomes when comparing two modalities.

5. Data analyses

First, twelve causal relations present in the story were analysed separately per each child. In other words, it was analysed whether the children produced these causal relations from the story and if they did, how they did it – using the same causal marking as in original story or reformulating them using some other type of marking (Table 1). In this way, we collected data on the frequency of causality marking, but also on the distribution regarding the specific way of their reformulation.

Table 1: Examples of analysing causality reformulation for each of 12 causal relations in the story.

Source	Causality relations	Type of causality marker
Original text	(Učiteljica je rekla) Tome, mjesto pokraj tebe je slobodno. Julija će biti tvoja susjeda. (Teacher said) Tom place next to you is free, Julie will be your neighbor.	T2
Child 10 year	<i>Vidjela je da je kod Toma prazno mjesto i tamo ju je stavila.</i> She saw that next to Tom the place is empty and she put her there.	T3
Child 10 year	<i>I onda je sjela pokraj njega jer mjesto nije bilo zauzeto.</i> And then (Julie) sat next to him because the place was not taken.	T5
Child 12 year	<i>Budući da je mjesto do Toma bilo slobodno Julija je sjela do Toma.</i> Since the seat next to Tom was free Julie sat down next to Tom.	T5
Child 12 year	<i>Učiteljica je vidjela da kod Toma ima mjesta za još jednog učenika. Došla je do njega i rekla mu da je od sada Julija njegova susjeda.</i> Teacher saw that there was a place for one more pupil next to Tom. She came to him and said that from now on Julie was his neighbor.	T1

Second, based on obtained data regarding to the frequency of causal relations and distribution of specific causal types we conducted further quantitative and

descriptive analyses. To test the difference in causal expression, regard the age and modality we conducted *t-test*.

6. Results

To examine whether there is a difference in marking of the causal relation with respect to age and modality, several consecutive *t-test* analyses were performed. First, we wanted to test a difference between oral and written production in total number of marked causal relations in each of these two groups separately. The results show that there is no significant difference in the total number of marked causal relations in oral vs written retelling among 10-year-olds ($t=1,551$, $df= 44$, $p>,05$) and no significant difference in the total number of marked causal relations in oral vs. written retelling among 12-year-old children (Figure 1).

Second, we tested is there a difference between 10- and 12-years old children in total number of marked causal relations in oral modality. The results show that there is no significant difference between 10- and 12-year-old children ($t=-0,82$, $df= 51$, $p>,05$) (Figure 1).

Finally, a significant difference between the two age groups is found only in the total number of marked causal relations in written retelling ($t=-2,123$, $df= 51$, $p<,05$), in favour of the older group (Figure 1).

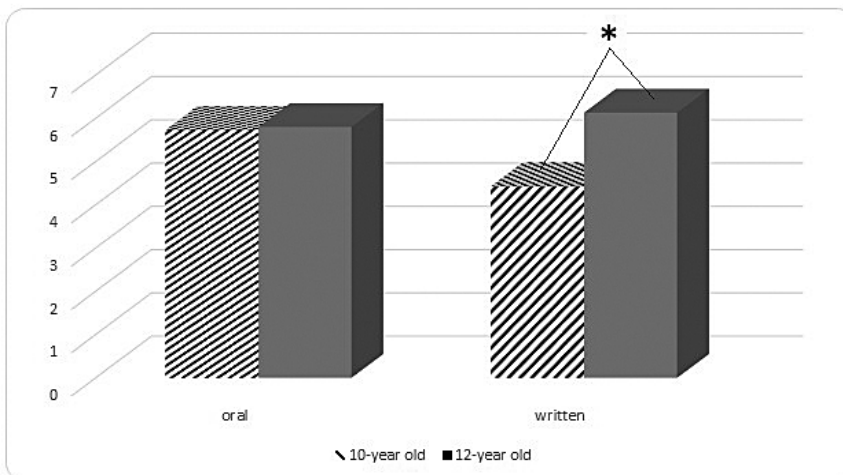


Figure 1: Frequency of causal relations marked in each age group with respect to modality.

In addition to the total number of causal relations produced, we were also interested in how the children marked them and which type of causality marking was the most dominant in their reformulating. The Figure 2 and 4 present percentages only of reformulated causal relations (more precisely, paraphrased, non-repeated clauses) per each sequence in both modalities for both groups separately. It is important to emphasise here that gaps on several sequences in both figures mean that in these sequences the children expressed a causal relation in the same way as it is expressed in the original text. In other words, there were no children's paraphrasing of causal relation in these sequences.

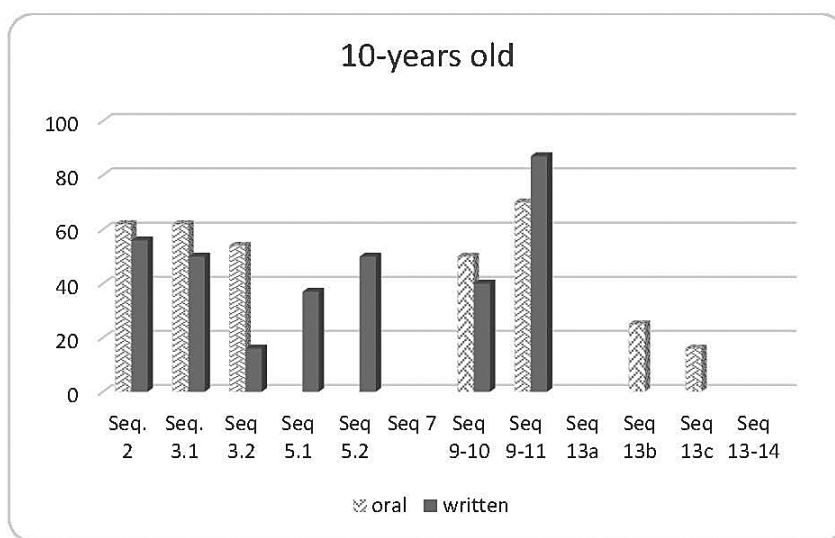


Figure 2: Percentages of reformulated causal relations per each sequence.

Further descriptive analysis of the causal types by which children expressed causal relations from the story shows that 10-years old children most often reformulated causal relations using two specific types of causality: grammatical marker non-specific to causality (T3) and explicit causal marker (T5), and both types are more dominant in oral modality (Figure 3).

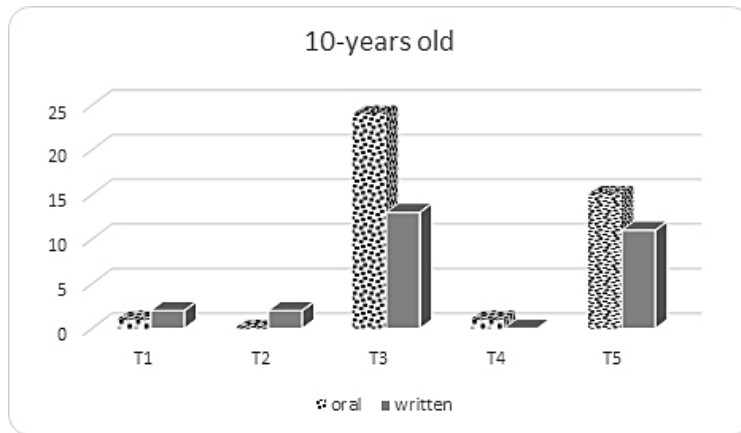


Figure 3: Distribution of type of causality marking used by children in reformulating of causal relation from the story.

Legend: T1: Semantic link only, T2: Verbal markers of time/aspect/modality, T3: Grammatical marker non-specific to causality, T4: Lexical marker, T5: Explicit causal marker.

In a group of 12-year-olds, only sequence 7 is the one in which children express causality in the same way as in the original story (*Tom was a little scared because he was not allowed to go into the forest*). In all other sequences in both modalities, children expressed causality reformulating syntactic structures using some other causal markers than those in the original text.

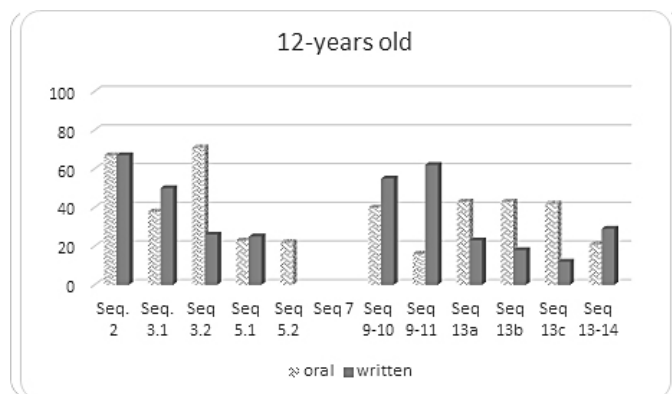


Figure 4: Percentages of reformulated causal relations per each sequence.

Further descriptive analysis of the markers by which children expressed causal relations from the story shows that 12-years old children most often reformulated causal relations using two specific types of causality: grammatical marker non-specific to causality (T3) and explicit causal marker (T5) and both types are equally dominant in both modalities (Figure 5).

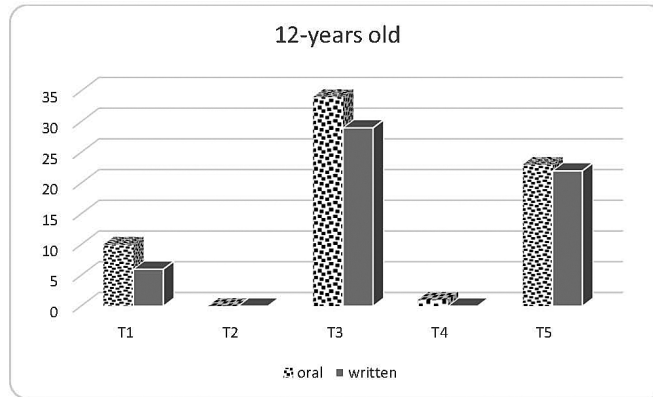


Figure 5. Distribution of type of causality marking used by children in reformulating causal relation from the story.

Legend: T1: Semantic link only, T2: Verbal markers of time/aspect/modality, T3: Grammatical marker non-specific to causality, T4: Lexical marker, T5: Explicit causal marker.

7. Discussion

The aim of this study was to explore how children express the casual relations with specific interest on most dominant type of causality marking that they use during the reformulation of causal sequences. In this research, retelling was taken as the basic method for eliciting narratives (Westerveld 2007) for two reasons: 1) it requires storing the story and recalling it in the correct timeline followed by the possibility of linguistic reformulation of the syntactic structures and 2) it provides an examination of the overlap of language input and language output, ie what the child is linguistically exposed to and what child produces.

Because understanding and producing causal relations is closely related to the general capacity to create coherent discourse (Trabasso 1994; Brown 2007, 2008), we wanted to explore how children of different ages (10-years vs. 12 years) use different linguistic elements to establish relations between cause and effect in their narrative production. In doing so, we were not only interested in age differences, but also in differences in the modality in which the story is created. Namely, we want to see how children marking causality when they need to retell a story orally and written.

In this study two hypotheses were addressed. The first hypothesis - according to which we assumed that both groups of children will produce more causal relations in written modality than in oral, but still children in older age groups will use in total more causal relations than younger group - has been partially confirmed. Conducted quantitative analysis within the groups showed that both younger and older groups of children used the same number of causal relations in both modalities. Quantitative analysis between groups showed that 12-years old children produce more causal relations than 10-year-old in written modality only. This can be explained by the fact that although children begin to develop written competence in middle grades (between 9 and 12 years old), texts created by 12-year-olds are syntactically more complex than those produced by 10-year-olds, thus making their texts more structured, and the skill of transcription automated (Berninger, Fuller and Whitaker 1996). However, oral language is less tied and more flexible than written and many nonverbal cues such as facial expression and gesture, support its realization and therefore facilitate comprehension and production of cause-effect relations.

During causal marking, speakers have at their disposal a wide range of linguistic means to label it, some of which are more explicit and others more implicit. For this analysis those linguistic means were categorized into five categories that indicate whether the speaker expresses the relations between cause and effect by relying more on purely semantic link, lexical choice, or on wide range of grammatical elements like specific verbal features, and more or less explicit connectors. Therefore, our second hypothesis focused on examining the most dominant type of causal markers that children used during oral and written retelling. We assumed that the explicit causal marker will be the most dominant marking type in the older group in both modalities and that 10-year-olds will use more other,

less explicit causal markers. The hypothesis has not been confirmed. Namely, data showed that both, 10- and 12-year-old children, in both modalities did use more of less explicit causal markers than the explicit ones. The most often produced marker is T3. This type consists of grammatical, more precisely, syntactical markers, that are not specific to causality (relative pronouns, wide-usage connectors, conjunctions of finality, etc.). The dominate usage of this type of marking could be explained by its greater quantity and diversity. Although this group of causal markers consists of grammatical means that are not primarily intended to express a causal relation, some of them are very often used in this function not only in the children's language (such as conjunction *i* 'and') but in adult language as well. Since it is a multiform type, the more detailed classification is needed to see if there is a difference in usage for a particular subtype of T3. For example, it would be worth exploring the appearance of relative pronouns, or the way connector *i* ('and') is used in younger vs older age group in two modalities.

Second dominant marking type in both groups of participants and in both production regarding to modality was T5 i.e., explicit causal marker of causality. Within this type, causal relation is expressed by a very limited number of conjunctions and adverbs that are exclusively intended to causality. It should be emphasized that this marking type is represented only once in the original story with the conjunction *jer* ('because') (seq. 7: *Tom se malo bojao jer mu bijaše zabranjeno ići u šumu* / *Tom was a little scared because he was not allowed to go into the forest*) so in all other clauses it appears as a result of children's reformulation of another linguistic means. At the same time, children always reformulate the causal relationship expressed by T5 in the original text using T5, but not necessarily using the same connector (*jer* 'because') as in the original text (they use both *jer* and *zato što*). All this demonstrates that children have strong tendency to use explicit causal marker for expressing realized causal relation. Although we did not look for the number of appearance of a particular marker, it is clearly observable that the number of adverbial marker is very low when compared to conjunctions. For example, adverbs like *stoga* or *zato* 'therefore' are attested only few times in both groups. Among conjunctions, it is also evidenced that those standing at the beginning of a complex clause (*budući da*, *pošto* 'since') are rarely used by children of both ages and in both modalities. This suggests that causal relation with the cause–effect order is rarely used and

that children are much more prone to express causality through the effect–cause order, at least when they use the explicit markers. Research made with younger children, aged 2 to 3, argued that clause order preference determined connective use and not the other way around (Hood and Bloom 1979: 25), for example *jer* ‘because’ can be used only with effect-cause: *Bojao se jer mu je bilo zabranjeno ići* ‘He was afraid because he was forbidden to go’ (*Bilo mu je zabranjeno ići jer se bojao* ‘He was forbidden to go because he was afraid’ has a different meaning), while *stoga* and *zato* ‘so, therefore’ are used with cause-effect order: *Bilo mu je zabranjeno ići, zato se bojao* ‘He was forbidden to go, so he was afraid’ (*Bojao se, zato mu je bilo zabranjeno ići* ‘He was affraid, so he was forbidden to go’ has a different meaning). The reformulation of causal order pattern from the original text, as well as the choice of grammatical means in this sense is worth of exploring in the future work. It would be interesting to research the acquisition of those two kinds of explicit causal markers in Croatian and see if their distribution in child language development can be attributed to their level of or to the frequency in the language input.

What is in common to these two most frequent types, T3 and T5, is that both are purely grammatical devices of expressing causality, with lower (T3) or higher (T5) degree of explicitness. This means that children at the age of 10 and later predominantly express causality using grammatical markers. Moreover, the ratio of both types shows that 10-year-olds in oral modality only have higher percentage of T3 usage (58%) when compared to 12-years-olds (50%). This is in line with Košutar and Hržica (2021) who showed that children after the aged of 10 use more often more complex causal markers. However, a considerable ratio of causal relations expressed with only semantic marking (T1) is found in both age groups, which is something that is worth of further exploring, especially regarding the criteria for identifying such relation within a narrative. Types 2 and 4 are rarely used in both groups and in both modalities, and when they did, they were related to the reformulation of the sequences they were originally used.

Besides important findings on the expression of causality in Croatian, this study has several limitations. Results of this study are limited by its methodology, particularly in a method used for eliciting discourse production and in the age of participants. When retelling is used many variables affect final participant’s performance such as the acquaintance of the participant with the information

provided by the model, the number of exposures to the model of the story, language complexity and length of the model (Westerveld 2007). Therefore, story generation as second valid method for eliciting discourse production should be taken as well, especially because these two methods – retelling and story generation - give different insights into participant's ability for structural and linguistic story production (Kuvač Kraljević et al. 2020).

Future studies should expand the age range, especially on younger age groups, analysing not just when children start to mark causality but also exploring how they do it i.e. which markers they use and how they incorporate them into discourse structure. As already mentioned, it would be worth exploring the emergence of specific linguistic elements of a particular causal marker.

It will certainly be worth of investigating the extra-linguistic factors such are socio-economic status, home literacy environment, exposure to different kinds of media, child's motivation etc. to see whether those circumstances influence the production of causal markers and in which way.

All these analyses are necessarily to gain a more complete understanding of development of causality marking especially when and how children make transition from less to more sophisticated grammatical markers.

8. Conclusion

This paper seeks to fill a gap in the Croatian literature on the expressing of causality in the Croatian language. The causal relations in discourse understanding and producing are important because they allow for the integration of the macrostructural and microstructural level of the discourse. During causal marking, speakers have at their disposal a wide range of linguistic modes and means to label it, some of which are more explicit and others more implicit. Given the linguistic complexity of causality marking, children need to learn how and in what syntactic and discourse context to use them.

This study shows that children at the age of 12 produced more causal relations in written modality that can be consequence of the greater writing competence in production of more complex syntactic structures. In expressing of causality chil-

dren on both modalities used more grammatical marker regardless of the age. The results indicate that 10- and 12-year-old children use various means, in different proportions, to reformulate the causal relations they were faced to in the original text. Moreover, they rarely repeat the original marker, unless if it was already explicit one. All these findings point to the demand in marking causality in a coherent discourse and text that children in intermediate grades still have to master and to the importance of further research into this linguistic phenomenon in the discourse of children and adults in the Croatian language.

Appendix

Source text *Tom i Julija*

- 1) Toga je jutro učiteljica stigla u školsko dvorište kasnije nego obično. Za ruku je držala djevojčicu koju još nitko nikad nije vidio.
- 2) Stigavši u razred, učiteljica je rekla: Djeco, predstavljam vam novu učenicu, zove se Julija. **«Tome, mjesto pokraj tebe je slobodno, Julija će biti tvoja susjeda, budi ljubazan prema njoj!»**
- 3) **Tom bijaše lud od sreće pri pomisli da će možda steći novu prijateljicu. Navečer je kod kuće izradio Juliji malenu okruglu, crveno-zlatnu kutiju.**
- 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.
- 5) **Juliji se ta kutija toliko svidjela da ju je uvijek nosila sa sobom. Kad bi učiteljica rekla: «Izvadite stvari!», Julija bi pažljivo stavila kutiju između Toma i sebe na klupu.**
- 6) Jednoga dana Julija prišapnula Tomu: «Otvori kutiju!» Tom podiže poklopac i otkri komad papira na kojem je Julija bila napisala: «Čekam te večeras u 8 sati ispod velikoga stabla na ulazu u šumu.»
- 7) **Tom se malo bojao jer mu bijaše zabranjeno ići u šumu, pogotovo noću.**

- 8) Ali u 8 sati navečer ipak je došao na sastanak. Julija ga već čekaše.
- 9) Ne rekavši ni riječ, **djevojčica uzme Toma za ruku i pokuca 3 puta o deblo velikoga stabla.**
- 10) Nakon nekoliko minuta djeca začuju neku škripu. **Stablo se upravo okretalo oko sebe.**
- 11) **Odjednom, deblo se otvori**, a djeca su bila zabljesnuta svjetlošću koja je preplavljivala unutrašnjost stabla. Načinili su nekoliko koraka i stablo se zatvori za njima.
- 12) Tom i Julija nađoše se u jednom prekrasnom vrtu gdje se cvijeće činilo da međusobno razgovara pjevajući. Tada Julija reče Tomu: «Dođi, prijedimo vrt, večeras je ovdje veliko slavlje za tebe. Do ponoći smiješ od našega kralja tražiti sve što želiš.»
- 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.»**
- 14) **I od toga je dana Tom postao veoma pametno dijete.**

Acknowledgments

This research is made within the Croatian Science Foundation project *Multilevel approach to spoken discourse in language development* (UIP-2017-05-6603) and AHRC project *Feast and Famine: Confronting Overabundance and Defectivity in Language* (AH/T002859/1).

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Označivanje uzročnosti u dječjem usmenom i pismenom prepričavanju

Sažetak

Jedan od glavnih preduvjeta za razumijevanje i oblikovanje koherentnoga usmenoga ili pisanoga diskursa jest uspješno razumijevanje i stvaranje uzročno-posljedičnih odnosa. Tijekom obiju proizvodnja djeca imaju na raspolaganju širok raspon jezičnih sredstava za obilježavanje uzročnosti, od eksplicitnijih do implicitnijih.

U ovom je istraživanju upotrijebljeno prepričavanje kao metoda za poticanje stvaranja priča na temelju kojih je raspodjelom u pet markerskih tipova analizirano izražavanje uzročno-posljedičnih odnosa. Prepričavanje omogućuje istraživanje reformulacije sintaktičkih struktura prethodno pohranjene priče i analizu preklapanja između jezičnoga sadržaja kojemu je dijete izloženo (jezični unos) i jezika koji dijete proizvodi (jezični izlaz). Dvije skupine djece, u dobi od 10 (N=23) i 12 (N=30), bile su izložene priči u dvjema vremenskim točkama; u prvoj su je morali prepričati usmeno, a u drugoj pismeno.

Provedene analize pokazale su da su 12-godišnjaci proizveli ukupno više uzročno-posljedičnih veza od 10-godišnjaka, ali samo u pisanom obliku. Ta se razlika objašnjava većom pismenom kompetencijom 12-godišnje djece u proizvodnji složenih sintaktičkih struktura. Nadalje, obje skupine djece služile su se u obama modalitetima dominantno istim uzročnim markerima koji su u prvom redu gramatički. Rezultati upućuju na dječju sposobnost reformuliranja uzročnih odnosa neovisno o jezičnom sadržaju kojemu su prethodno bila izložena.

Keywords: retelling, reformulation, causality, Croatian

Cljučne riječi: prepričavanje, reformulacija, uzročnost, hrvatski jezik

