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## LANGUAGE DEVELOPMENT IN EARLY CHILDHOOD: DEVELOPMENTAL CHANGES BETWEEN THE AGES OF THREE AND FOUR

Language development in toddlerhood and early childhood progresses very quickly, while individual developmental phases are the same irrespective of the language the child is acquiring. The aim of this longitudinal study was to examine the characteristics of children's language comprehension and expression, and their pragmatic use of language, as well as to determine the developmental language changes that occur between the ages of three and four. The sample involved 80 randomly selected children, 39 girls and 41 boys, whose average age at the first evaluation was 3,1 years and at the second 4,1 years. The research also involved the mothers and teachers of the children included in the sample. The children's language comprehension and expression were determined using a *Language Development Scale*, and their pragmatic use of language through testing their storytelling abilities. Their language competence was also evaluated by their teachers and mothers. The results highlight significant differences between three- and four-year-olds as shown by the *Language Development Scale* and by their storytelling abilities, as well as in the evaluations by their teachers and mothers. Among three-year-olds, stories at the 2<sup>nd</sup> level of coherence prevailed, i.e. containing simple descriptions of people, objects or illustrations, whereas four-year-olds most often told stories at the 3<sup>rd</sup> level, i.e. containing a simple temporal stringing together of events. The child's gender had no significant effect on development between the age of three and four. In interpreting the results, we drew upon the findings of both Slovenian and foreign authors relating to different aspects of language development in toddlers and young children.

Govorni razvoj v obdobju malčka in zgodnjega otroštva poteka zelo hitro, zaporedje posameznih razvojnih faz pa je univerzalno ne glede na jezik, ki ga otroci usvajajo. V pričujoči longitudinalni raziskavi smo avtorice želele preučiti značilnosti govornega razumevanja in izražanja otrok ter njihovo pragmatično rabo jezika, prav tako pa tudi ugotoviti razvojne spremembe v govornem razvoju v obdobju med tretjim in četrtem letom otrokove starosti. V vzorec je bilo vključenih 80 naključno izbranih otrok, 39 deklic in 41 dečkov, ki so bili pri prvem merjenju v povprečju stari 3;1 let, pri drugem merjenju čez eno leto pa 4;1 let. V raziskavo so bile vključene tudi mame otrok in vzgojiteljice iz oddelkov, ki so jih obiskovali otroci, vključeni v vzorec. Govorno razumevanje in izražanje otrok smo ugotavljale s pomočjo *Lestvice govornega razvoja*, njihovo kompetentnost pragmatične rabe jezika pa s pomočjo preizkusa pripovedovanja zgodbe. Govorno kompetentnost otrok so prav tako ocenile tudi njihove vzgojiteljice in mame. Dobljeni rezultati so pokazali, da se tri- in štiriletni otroci pomembno razlikujejo med seboj tako v dosežkih na Lestvici govornega razvoja kot tudi v kompetentnosti pripovedovanja zgodbe, prav tako pa tudi v ocenah vzgojiteljic in mam. V zgodbah triletnih otrok je prevladovala 2. raven koherentnosti oz. zgodbe s strukturo, ki vsebuje preproste opise oseb, predmetov ali ilustracij, medtem ko so štiriletniki najpogosteje pripovedovali zgodbe s strukturo, ki vsebuje enostavno časovno nizanje dogodkov (3. raven koherentnosti). Otrokov spol pa ni bil dejavnik, ki bi imel pomemben učinek na razvoj njegovega govora med tretjim in četrtem letom starosti. Dobljene rezultate smo interpretirale v povezavi z ugotovitvami tujih in domačih avtorjev o značilnostih razvoja različnih vidikov govora v obdobju malčka in zgodnjega otroštva.

**Key words:** language comprehension and expression, storytelling, developmental changes

**Ključne besede:** govorno razumevanje in izražanje, pripovedovanje zgodbe, razvojne spremembe

### Language development in early childhood

Language development takes place very quickly in infancy and toddlerhood (from birth to 3 years of age) as well as in early childhood (from 3 to 6 years of age), progressing through the same developmental stages in all children irrespective of the language involved. The sequence of language development, from the production of sounds to the words and grammatical patterns of the language (Bates and Goodman 2001; Slobin 2001), is thus universal and while the critical period for certain developmental stages may differ among children, this usually involves only a time shift of a few months (Bates and Goodman 2001; Crain and Lillo-Martin 1999). Reynell (1977) identifies three components of verbal expression: vocabulary, grammatical structure and content. The development of these three components is interwoven during the process of the child's language development.

### Development of the child's vocabulary

Most children utter their first word between the age of 12 and 20 months (Marjanovič Umek and Fekonja 2004a; Tomasello and Bates 2001). Children acquire words through the medium of the complex utterances they hear in their environment and draw conclusions about the meaning of these words through the whole social situation in which the speakers utter them (Hoff 2001; Hoff and Naigles 2002; Siegler 1998; Tomasello and Bates 2001). The first words a child uses in his or her speech are similar irrespective of the culture and language involved, denoting family members, objects, animals, food, the functioning of the body, social routines, and simple orders and requests (Karmiloff and Karmiloff-Smith 2001; Papalia, Olds and Feldman 2001; Siegler 1998). Many authors (e. g. Caselli, Casadio and Bates 2001; Nelson 1996) emphasise the great differences between individual children: with some the names of objects predominate, while others acquire the words used in various social interactions first. A Slovenian research project (Kranjc 1999) involving two age groups – 15 to 23 months and 29 to 31 months – showed that in the speech of the younger children lexical items (most frequently nouns, somewhat less often verbs) and demonstrative pronouns prevailed. In particular, words were used to name concrete reality. The speech of the older group was characterised by a greater dynamism, with the proportion of verbs and adverbs in the vocabulary increasing, while that of nouns decreased. The older children used words increasingly to denote the properties of objects and actions. Their vocabulary was also characterised by more conjunctions, prepositions and particles. These results are comparable to a piece of research involving children ages between 19 and 22 months old (Kranjc and Marjanovič Umek 1994). Owens (1996, in Papalia et al. 2001) reaches the similar conclusion, that during the child's language development the vocabulary changes so that the number of verbs

increases at the expense of nouns, while the increase in function words is linked with the child's acquisition of the grammar of the language and the appearance of multi-word utterances (Caselli et al. 2001). The number of adjectives also increases, as the child increasingly wants to name the properties of the objects in the immediate environment (Kranjc 1999) and the relations between them (Caselli et al. 2001). Bates and Goodman (2001) describe two important leaps forward in the development of the child's vocabulary, the first between 16 and 20 months, the second between 24 and 30 months. In such a period the child's vocabulary can grow at the rate of several words per day (Siegler 1998; Tomasello 2001). In a period of rapidly increasing active vocabulary, the child's verbal understanding also increases, so that the child can derive ever more information from spoken utterances (Fernald et al. 2001). In early childhood, too, authors have identified specific ages (e.g. 2.6 years, 3.0 years, 3.6 years, 4.6 years) at which the scope of the child's vocabulary more noticeably increases (Bloom, Tinker and Margulis 1993; Miller 1986). All children do not make such developmental leaps at the same time (Reznick and Goldfield 1990; Hoff 2001). Above the age of five the child's vocabulary continues to grow, although somewhat slower than before (Vane 1975).

The development of the child's vocabulary does not take place separate from that of the grammar of the language, as children rarely hear in adult speech individual words isolated from others, but rather as part of a multi-word utterance whose aim is communication between individuals (Tomasello and Bates 2001).

### **The development of grammatical structures and the content of the child's language**

The grammar represents the individual's representation of a language (Fromkin et al. 2000). It involves the whole set of rules that determine how the utterances that an individual understands and uses in speech are formed (Crain and Lillo-Martin 1999; Siegler 1998). The first combinations of words can be used by a child in very different functional and semantic relations, and describe activities in which the child is involved and which are important to him or her (Tomasello and Bates 2001). D'Odorico (2003) emphasises that the scope of a child's vocabulary is positively linked with the ability to form two-word or multi-word utterances, although not necessarily so, as a child with a wide vocabulary may form only single-word utterances. The child's utterances in early childhood become ever more structured and similar to the grammatically correct utterances of adults (Siegler 1998; Tomasello and Bates 2001). Between 24 and 27 months of age most children are forming utterances consisting of three or four words and are rapidly acquiring the grammatical rules of the language (Smith and Cowie 1993). Children thus form ever more complete utterances, combining words in different ways and exploiting grammatical forms, in this way creating different possibilities for verbal expression (Toporišič 1992). In the period from 24 to 30 months there often appears in child speech a »sequence of substitutional utterances« in which the child constructs an utterance on the basis of the preceding one until the desired meaning is communicated (Siegler 1998). Functional words are rare in a child's first utterances

(Nelson 1996). A wide vocabulary enable the child to use a wide range of one-word utterances to identify different objects in the immediate environment, while the dual and plural are used with increasing frequency (Nelson 1996). At the same time, through the utterances the child hears, he or she acquires the word-order characteristic of his or her mother tongue (Akhtar 2001).

When a child makes progress in acquiring the grammar of a language, he or she often adds adjectival words describing the qualities of objects and their location (Karmiloff and Karmiloff-Smith 2001; Marjanovič Umek 1984; 1990). With the development of multi-word and ever more complex utterances children more frequently include conjunctions, prepositions, auxiliary verbs, adverbs and pronouns (Crain and Lillo-Martin 1999; Papalia et al. 2001; Toporišič 1992). The words and grammatical rules a child acquires enable him or her to talk about objects that are absent and about past events, or to ask about objects in the immediate environment. In toddlerhood children begin to form subordinate and coordinate clauses that contain verbs in the past or future tense (Browne 1996; Fekonja 2002b). Children acquire the rule for conjugating and for forming the passive form of verbs (Browne 1996; Papalia et al. 2001; Smith and Cowie 1993). The speech of a three- or four-year-old is in most cases understandable not only to the parents, but also other adults as children by this stage have already mastered the basic grammar of the language (Crain and Lillo-Martin 1999).

Crain and Lillo-Martin (1999) note that children often over-generalise the grammatical rules acquired from the environment. When, for instance, a child correctly learns to form the past tense of a regular verb, he or she applies this rule also to irregular verbs. The same goes for formation of the dual and plural. This tendency to generalise is important as it shows that the child has already mastered a particular grammatical rule. Up to the age of five children in all cultures understand and take into account in their speech most of the grammatical rules of the language (Smith and Cowie 1993; Reynell 1977). Five-year-olds thus communicate effectively with both adults and peers, have a unique way of verbal expression, which allows them to engage in spoken interaction with their peers, e.g. during games (Fekonja 2002; Smith and Cowie 1993).

Early childhood also sees the continuing development of negative and interrogative statements, while children increasingly understand the meaning of auxiliary verbs and the use of negative verb forms such as »*Nočem več pit*« [I don't want to drink any more]. They also use appropriate negative forms in Slovene when the clause begins with words such as »*nobeden*« [no-one] and »*nikjer*« [nowhere] (Marjanovič Umek and Fekonja 2004b). The number of interrogatives in child speech increases up to the age of five and then starts falling (Marjanovič Umek 1990).

The period from age four to five is characterised by the development of certain metalinguistic skills that include awareness of one's own language, such as deciding on word order and correcting grammatical mistakes. Before this, children are not able to say what is wrong with a grammatically incorrect utterance, even though they use the appropriate rule to form correct utterances (Crain and Lillo-Martin 1999). We can conjecture about a child's metalinguistic awareness on the basis of the use of words directly linked to the individual's use of language, such as »talk« and »listen« or in

the context of the written word »book« and »read« (Pellegrini and Galda 1998). The child begins to understand the meaning of the words »word', »stress« and »syllable« (Marjanovič Umek and Fekonja 2004b; Ziarko and Morin 2003).

### **The development of storytelling**

A story is determined by two criteria, its content and its form – or coherence and cohesion (Karmiloff and Karmiloff-Smith 2001; Wray and Medwell 2002). Coherence is one of the characteristics of textuality, the basis of which is continuity of sense (Dressler and de Beaugrande 1992). In addition to a coherent structure understandable to both the teller and the listener, it is also important that the content is logically connected (Burton 2001). A story's cohesion is dependent on the linguistic means of expression with which individual parts of the story are linked, for example causal and temporal conjunctions. It is thus part of the surface structure of the story. A child's narration of a story can be based on pictures or free storytelling (Marjanovič Umek and Fekonja 2004b).

Storytelling ability usually develops over a period of a year, when the child begins to use two-word utterances. He or she is thus able in a new way to organise, link and give sense to his or her experience (Oppenheim, Emde and Wamboldt 1996). The toddler's first stories are linked to the immediate environment and often include spatial and temporal orientation, as well as naming of people and objects (Fein 1995). The stories include simple descriptions of events children have experienced and are to a great extent linked directly to their own perceptions (Fein 1995). Two-year-olds often include one of the following three criteria for a story: a title or beginning, an end and the use of the past tense (Aller 1995, in Bröström 2002). The first stories are not yet based on mental representations and are thus often ill-formed and do not include a problem, a goal or a solution (Fein 1995). Similarly, Scarlett and Wolf (1979, in Smith and Cowie 1993) note that the storytelling of two- to three-year-olds is dependent on specific aids, such as a toy; after this, children gradually distance themselves from specific aids and activities, relying more on their perceptions and use of speech. Even when telling a story with no pictorial basis, toddlers often string together descriptions of people, objects or events.

From the age of three, children tell ever more structured stories. The stories of four-year-olds more often fit the pattern of conventional storytelling (Broström 2002; Fein 1995; Marjanovič Umek and Grad 1984). An important process facilitating the telling of coherent stories is that of decontextualisation, which allows the child to shape perceptions, conclusions and logical links in such a way that the listener understands them (Marjanovič Umek and Fekonja 2004b). In early childhood children base their storytelling on their imagination, creating and linking various possibilities regarding the beginning, continuation and conclusion to the story (Fein 1995). In other words, they tell real, original, structured stories with a beginning, middle and end or denouement, in which they describe either real or made-up persons and events. Stories formed in this way are a rounded whole and not simply a string of utterances connected to a greater or lesser degree (Broström 2002). In early childhood children are

capable of forming, prompted by pictures, coherent stories that include descriptions of relations between the protagonists, different objects and events (Child Development Institute 2003). Children who already tell conventional and structured stories usually build upon the beginning of the story. Also, they are aware of the goal that holds the story together; they describe people's motives and feelings, while bringing the story to a climax around the figure of the main protagonist (Fein 1995; Marjanovič Umek, Fekonja, Kranjc and Lešnik Musek 2003). Four-year-olds often make use of metaphor (Winner 1988) and invest in their stories a great deal of imagination, symbolism, transformations and metalinguistic utterances (Applebee 1978). Between the ages of four and five, children do not merely string together and add new descriptions and details, but rather build them as a chain of linked elements (Applebee 1978). Five-year-olds increasingly tell their stories in the past tense (Aller 1995, in Broström 2002), using different intonation and tone of voice to impersonate various protagonists (Scarlett and Wolf 1979, in: Smith and Cowie 1993). They also know how to make clear the main characteristics of each story, which illustrates their metalinguistic capabilities (Fein 1995). Five- and six-year-olds use complex patterns of thought to reflect on the individual elements that make up the story and to evaluate the behaviour and actions of the protagonists (Dombey 2003). The structural level of the child's stories is not a constant but rather a process that adults can promote by supporting in different ways the child's imagination and narration (Marjanovič Umek and Fekonja 2004b).

The aim of this study was to examine the characteristics of children's language comprehension and expression, and their pragmatic use of language, as well as to determine the developmental language changes that occur between the ages of three and four.

## Method

### Participants

The longitudinal study involved 80 randomly selected children, 39 girls and 41 boys, attending preschool institutions in different Slovenian regions. When first evaluated, the average age of the children was 3.1 years and on the second occasion 4.1 years. The research also involved the mothers and teachers of the children included in the sample.

### Instruments

Within the broad longitudinal study »The influence of nursery school on children's development and their success at school« (see Zupančič, Marjanovič Umek, Kavčič and Fekonja 2003), on the basis of the *Reynell Developmental Language Scale* (RDLS III) (Edwards et al. 1997) and *Vane – L* (Vane 1975), we set up a *Language Development Scale*, made up of two subscales for *Language Comprehension* and *Language Expression* (with a split-half reliability of 0.68 based on a sample of 269 Slovene children aged 3;1 and of 0.67 based on a sample of 298 Slovenian children aged 4;1). The



*Language Comprehension Subscale* incorporated 22 tasks with which we evaluated the child's comprehension of spatial relationships, properties and participatory roles, while that of *Language Expression* was made up of 44 tasks which enabled us to evaluate the child's vocabulary, ability to conjugate the verb (3rd person and past tense), ability to use declensions (including plural and dual), and ability to repeat utterances. The researcher carried out the tasks on both subscales with the help of certain materials, such as bricks, cars and picture prompts. Points within particular groups of tasks were counted in such a way as to provide, with the help of the spoken scale, two results representing a grading of the child's language comprehension (a total of 22 points) and language expression (44 points), as well as a combined result for what the child achieved on the two subscales (a total of 66 points).

We determined the children's competence in the pragmatic use of language using the picture book *Maruška Potepuška* (Amalieti 1987) which has no text but rather illustrations that are logically linked into a story. Prompted by the illustrations in the book, the children told a story freely and it was then analysed in terms of grammatical structure and coherence. The criteria for the analysis of the *grammatical structure* were based on the use of different kinds of words and grammatical rules: the total number of nouns, number of different nouns, different nouns in the dual, the total number of verbs, different verbs, verbs in the past tense, verbs in the future tense, the total number of adjectives, different adjectives, the total number of pronouns, different pronouns, subordinate and coordinate clauses, interrogative utterances, negative utterances, imperative utterances, and utterances in direct and indirect speech. To analyse the *coherence* of the stories we used criteria we had previously defined for this purpose (Marjanovič Umek et al. 2003), which also represent the developmental level of the story: 1) *story with no structure (1 point)*; 2) *story with a structure, that contains simple descriptions of people, objects or illustrations (2 points)*; 3) *story with a structure, that contains a simple temporal stringing together of events (3 points)*; 4) *story with a structure, that contains descriptions of the thoughts and feelings of the protagonists and relations between them (4 points)*; 5) *story with a structure, that contains descriptions of causal relations and consequences (5 points)*.

The language competence of the children was evaluated through a *Child's language competence questionnaire* for parents (split-half reliability of 0.69 upon first use and 0.70 upon second use) and for preschool teachers (split-half reliability of 0.78 upon first use and 0.73 upon second use) containing 10 statements that help the respondents estimate the characteristics of the child's language. The statements describe different elements of the child's language, such as multi-word, interrogative and negative utterances, the use of the dual and plural, conjugation of verbs, the understanding and use of words for objects and parts of the body, and prepositions. Parents and teachers indicate whether or not each statement applies to the child in question, or indicate with a grade the level of the child's verbal competence. The answers are scored so that the evaluation of the child's language competence obtained through the questionnaire is given a value between 0 and 44.

### Procedure

Each child was tested twice, a year apart, using the *Language Development Scale*. The children were tested individually in an area separated from the playroom; their answers were recorded on a response sheet and then graded. The next step was to show the child the picture book *Maruška Potepuška* and ask him or her to tell a story. While narrating, the children were free to leaf through the book and choose which illustrations to talk about, so all the children did not start at the first one and end at the last. The researcher did not interrupt the child's narration or ask questions that might influence the way the story unfolded. The child was only prompted if he or she did not want to start telling the story or if long pauses occurred in the narration. The child's story was recorded and then a word-for-word transcript made. The stories were analysed by three trained evaluators using the criteria for analysing grammatical structure and cohesion. Those stories that could not be placed by an individual evaluator within a particular level of cohesion were assessed by the whole group of evaluators. Grammatically incomplete utterances were treated as complete if the child indicated through intonation or a pause that the utterance was complete.

The evaluators brought to the preschool teachers the questionnaires on language competence for both teachers and mothers. Both sets of questionnaires were completed twice: once when the child was around three years old and again at around four years old.

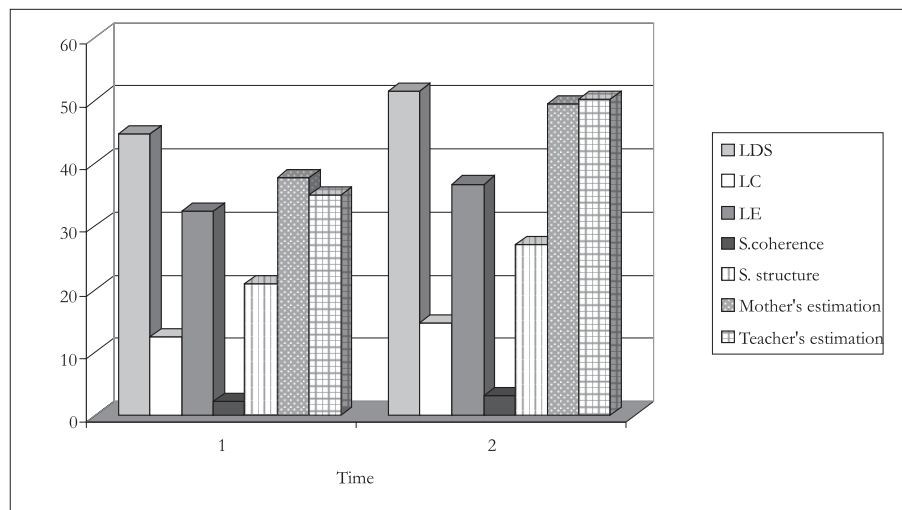
### Results

Changes due to age in the language development of three- and four-year-olds were identified with the help of a two-way ANOVA for repeated measures. We determined the effect of age as well as the interaction between age and gender on individual measures of language development.

The effects of the child's age on the results obtained on the *Language Development Scale* ( $F_1$ ) and the *Language Expression* ( $F_2$ ) and *Language Comprehension* ( $F_3$ ) *Subscales* were considerable ( $F_1 = 30.53$ ;  $p_1 = 0.00$ ,  $\eta^2_1 = 0.63$ ;  $F_2 = 30.54$ ;  $p_2 = 0.00$ ,  $\eta^2_2 = 0.28$ ;  $F_3 = 81.69$ ;  $p_3 = 0.00$ ,  $\eta^2_3 = 0.55$ ). At the first evaluation children achieved much lower results on the scales than they did a year later. The differences between results achieved by girls and by boys were not significant ( $F = 1.04$ ,  $p = 0.31$ ,  $\eta^2 = 0.01$ ).

The results show the great effect of the children's age on the coherence and grammatical structure of the stories ( $F = 29.14$ ,  $p = 0.00$ ,  $\eta^2 = 0.27$ ). At the second evaluation the children told much more coherent stories than on the first occasion. Developmental changes were also apparent in the much more complex grammatical structure of the stories ( $F = 29.35$ ,  $p = 0.00$ ,  $\eta^2 = 0.27$ ). Changes to the grammatical structure include the use of significantly more numerous nouns and verbs, the use of different verbs, verbs in the past tense, the total number of adjectives, the use of different adjectives, the total number of pronouns, the use of different pronouns, multi-word, subordinate and coordinate clauses, and utter-



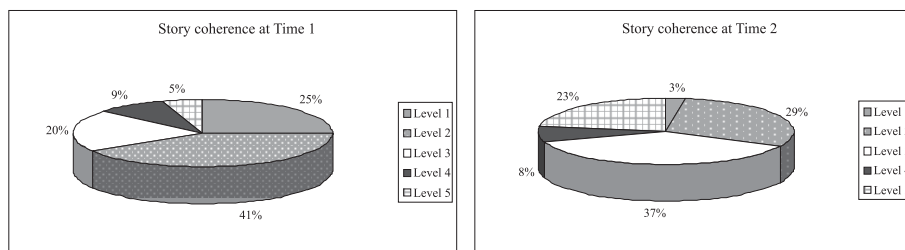


**Note.** LDS ... *Language Development Scale*; LC ... *Language Comprehension Subscale*; LE ... *Language Expression Subscale*; S. coherence... *story coherence*; S. structure ... *story structure*.

**Figure 1.** Average results for different contexts at first and second evaluation.

ances in indirect speech. No significant differences arose in the number of different nouns, the number of dual nouns, verbs in the future tense, or in the number of interrogative, negative or imperative utterances, or utterances in direct speech, as these were rarely used in the stories by children of either age. There were no significant differences between boys and girls with regard to age-related changes in the grammatical structure ( $F_1$ ) nor the coherence ( $F_2$ ) of their stories ( $F_1 = 0.38$ ;  $p_1 = 0.54$ ,  $\eta^2_1 = 0.05$ ;  $F_2 = 1.73$ ;  $p_2 = 0.19$ ,  $\eta^2_2 = 0.02$ ).

The greatest proportion of stories at the first evaluation were at the 2<sup>nd</sup> level of coherence, with a structure containing simple descriptions of people, objects or illustrations (41 %), while at the second evaluation 37.5 % were at the 3<sup>rd</sup> level, with a simple temporal stringing together of events. At the first evaluation, children often told stories at the 1<sup>st</sup> developmental level, i.e. with no discernible structure (25 %) and at the 3<sup>rd</sup> level (20 %). At the first evaluation few children achieved stories at the 4<sup>th</sup> and 5<sup>th</sup> levels, i.e. containing descriptions of the thoughts and feelings of the protagonists and the relations between them (9 %) or causal relations and consequences (5 %). At the second evaluation, there were few stories at the 1<sup>st</sup> level, i.e. stories without structure (2.5 %), or the 4<sup>th</sup> level, containing descriptions of the thoughts and feelings of the protagonists (7.5 %). In addition to the 3<sup>rd</sup> level already mentioned, the second evaluation was also characterized by stories at the 2<sup>nd</sup> level, containing simple descriptions of people, objects or illustrations (30 %) and the 5<sup>th</sup> level, containing descriptions of causal relations and consequences (22.5 %).



**Figure 2.** Frequency of different development levels of coherence of stories at first and second evaluation.

The effect of age on the evaluations by mothers and preschool teachers was considerable. Mothers ( $F = 71.21$ ,  $p = 0.00$ ,  $\eta^2 = 0.48$ ) as well preschool teachers ( $F = 135.63$ ;  $p = 0.00$ ,  $\eta^2 = 0.63$ ) estimated children's language development with much higher grades at the second evaluation than at the first. At the first evaluation, mothers graded children's language competence higher than did preschool teachers ( $t = 2.09$ ,  $p = 0.05$ ), while at the second evaluation grades given by preschool teachers were higher, although not significantly so ( $t = 0.09$ ,  $p = 0.37$ ). The child's gender had no significant effect on the estimations given either by the mothers ( $F_1$ ) or the teachers ( $F_2$ ) at either age ( $F_1 = 0.09$ ;  $p_1 = 0.76$ ,  $\eta^2_1 = 0.01$ ;  $F_2 = 0.08$ ;  $p_2 = 0.78$ ,  $\eta^2_2 = 0.00$ ).

## Discussion

The results of the two evaluations show that some important age-related changes take place in a child's language development between the age of three and four. The effect of age on results achieved on the *Language Development Scale*, and the two subscales for *Language Comprehension* and *Language Expression* was substantial. The results obtained show that with Slovene, as with English (e. g. Siegler 1998; Tomasello and Bates 2001), vocabulary and grammar develop rapidly in early childhood, while children's utterances become increasingly structured and similar to the grammatically correct utterances of adults. At the second evaluation, when their average age was 4,1 years, children were more successful at carrying out tasks measuring their understanding of spatial relationships, properties and grammatical roles. The two sets of results also point to changes in the children's level of language expression, shown in the scope of the vocabulary used by the child, the recognition and use of grammatical rules in the conjugation of verbs and the use of third person and past tense forms, in the use of the dual and plural or declensions and the ability to repeat utterances. The results obtained are in line with those of foreign researchers (e. g. Bloom et al. 1993; Carey 1978; Miller 1986), who have ascertained that in early childhood there is a particular period when the child's vocabulary markedly increases. This development would be worth exploring further using instruments that would facilitate a more precise evaluation of the understanding and use of particular words in early childhood.

The relevant changes in language development were not affected by the interaction of the children's age and gender.

The two sets of results support the authors' view that the development of a child's vocabulary does not proceed separately from the development of the grammar (Tomasello and Bates 2004). Many scholars (Caselli et al. 2001; Karmiloff and Karmiloff-Smith 2001; Kranjc 1999; Marjanovič Umek 1990) agree that as the child's grammatical acquisition progresses, there is also an increased use of adjectival words that describe the qualities of objects and the relations between them, as well as functional words such as conjunctions and prepositions. At the second evaluation children understood the meaning of a greater number of words relating to the properties of objects and describing spatial relationships. The results also show that children had progressed in their understanding of grammatical roles, which in some languages, such as English, is largely dependent on the acquisition of word order (Akhtar 2001).

By the second evaluation children had mastered significantly more grammatical rules, such as conjugation and declension, so they were more able to complete tasks on the subscale of verbal expression that demanded the use of verbs in the third person or the past tense and the use of declensions or the dual and plural. Similar findings in relation to the increasing use of the plural in toddlerhood and early childhood are made by Nelson (1996). The acquisition of rules relating to verb conjugation is probably also connected to the growing number of verbs in the child's vocabulary (Kranjc 1999; Owens 1996, in Papalia et al. 2001). Our results also support the finding of Crain and Lillo-Martin (1999) that children often falsely over-generalise the grammatical rules that they derive from language stimuli in the environment. At both evaluations there were instances, although infrequent, of such over-generalisations, e.g. »*Deklica plesa*« instead of »*Deklica pleše*« [*The girl is dancing*].

Between the age of three and four differences arise in the coherence of stories that children tell prompted by a picture book. At the first evaluation there predominated stories involving simple descriptions of people, objects or illustrations, such as »*Punčka gleda čez okno. Na pouštru sedi. Gleda mamo in pada sneg.*« [*The little girl is looking out of the window. She's sitting on a cushion. She's looking at mummy and the snow is falling*], while at the second evaluation most stories involved simple temporal stringing together of events, for example: »... *Šla je smučat. Potem je pa bežala. Potem je smučala čisto po robu. Potem se je ustavila. Skočila je s padalom.*« [*She went skiing. Then she ran away. Then she skied right on the edge. Then she stopped. She jumped with a parachute.*] Three-year-olds also often told stories with no structure, for example: »*Ne sme na stolu. Na stolu stoji, pa jabolko je vrgla. Dol je vrgla s stola. Zdaj je pa tak naredla.*« [*She can't go on the chair. She's standing on the chair, she threw the apple. She threw it down. Now she did this.*] The results of the first evaluation support the claims made by an English researcher (Fein 1995) that toddlers' first stories often include naming of people and objects as their storytelling frequently consists of the naming of people and objects in picture books and simple descriptions of illustrations, for example: »*Punčka gleda. Tuki je sneg. Smuča. Tuki so volki.*« [*The little girl is looking. There's snow. She's skiing. There are wolves.*] Descriptions of spatial and temporal relations, such as »*Drugi dan je smučala*« [*Next day she went*

skiing] or »Sedela je v svoji sobi« [She sat in her room] occurred less often at the first evaluation. Of the three criteria given by Aller (1995, in Brostrom 2002), three-year-olds most often made use of the past tense, for example: »Gledala je skozi okno. Potem je šla po knjigo. Usedla se je gor ...« [She looked through the window. Then she went to get her book. She got up and sat...] Stories less frequently had a logical ending such as »Pol je pa jedla pa je šla spat« [Then she ate and went to bed] or »Bila je noč in so zaspali« [It was night and they went to sleep], but sometimes the story ended with the word »konec« [the end]. Stories at the first evaluation rarely had a beginning that acted as an introduction to the continuing events, but more often began with a description of the illustration on the first page of the picture book, for example »Punčka gleda ven« [The little girl is looking out]. Nor did they usually involve a problem or a connecting theme that determined events and the outcome or solution. On both occasions children told stories prompted by the picture book and particularly on the first occasion relied heavily on the illustrations it contained, describing in a simple way the featured objects and people. This is similar to the finding of Scarlett and Wolf (1979, in Smith and Cowie 1993) that the storytelling of two- to three-year-olds is tied to specific aids, such as toys.

The second evaluation, in addition to the 3rd level of coherence, was characterised also by stories that give simple descriptions of people, objects or illustrations, such as »Punčka gleda skozi okno. Igračke ima razmetane. Obute ima copate. Igra se in pada sneg.« [The little girl is looking out the window. Her toys are all over. She's wearing slippers. She's playing and the snow is falling.]; and stories that describe causal relations and consequences, such as »Punčka gleda ven, ker sneži. Vesela je, zato ker je vidla snežinke. Ko je začelo snežit, je šla smučat.« [The little girl looked out because it was snowing. She was happy to see the snowflakes. When it started to snow she went skiing]. The results support the findings of numerous authors (e. g. Broström 2002; Fein 1995; Marjanovič Umek and Grad 1984) that children over the age of three form ever more structured stories. Thus the stories of four-year-olds usually already follow narrative conventions. In particular, stories that describe causal relations and consequences, which were much more frequent on the second occasion, represent very coherent stories. A similar conclusion was reached by a group of American researchers (Child Development Institute 2003) that in early childhood, following picture prompts, children are capable of forming coherent stories that include descriptions of relations between the protagonists, between different objects, events, etc., for example: »... Živali se veselijo, ker je pregnala volke. Tudi vrane so jo prišle pogledat. Maruško zebe, zato ji mamica nese jakno.« [The animals are happy because she drove the wolves away. The crows also come to see her. Maruška is cold, so her mummy brings her a jacket.] Mandler (1984, in Fein 1995) notes how young children rely on their own mental representation when telling stories, creating and connecting various possibilities with regard to how the story might begin, continue and conclude. The stories of 4-year-olds more often had a beginning that introduced the continuing events, such as »Nekega dne je Maruška gledala ven« [One day Maruška was looking out] or »Prišla je zima« [Winter arrived], and also had a clear and logical ending, such as »Bila je vesela, ker je prišla domov« [She was happy to get home] or »Vsi so

*se najedli in odšli spat*« [They all had something to eat and went to bed]. A number of authors (e. g. Broström 2002; Fein 1995; Marjanovič Umek at al. 2002) note that children who have started to tell conventional, structured stories tend to build on an initial event and know what the aim of the story is, giving it an overall theme, as well as describing the motives and feelings of the protagonists that lead to the story's climax, and building everything around the main character. At the second evaluation children were more likely to recognise the main character, Maruška Potepuška, and build their story around her, for example »*Punčka je vstala in šla do vrat. Veselila se je, ker je padal sneg. Šla je smučat ...*« [The little girl got up and went to the door. She was happy it was snowing. She went skiing...], whereas at the first evaluation the heroine was not recognised as such, the children failing to recognise Maruška, who features in every illustration, as one person: »*Ta punčka gleda sneg. Ta pa skače.*« [This little girl is looking at the snow. This one is jumping.] At the second evaluation children rarely told a structured story containing descriptions of the thoughts and feelings of the protagonists and the relations between them, but the stories at the highest level of coherence, which contained causal-consequential relations, often included elements of the 4<sup>th</sup> level of coherence, such as »... *Prišli so volkovi. Hoteli so jo ujet. Deklica jih je pregnala. Živalce so bile vesele. Vesele so prišle k njej ...*« [Some wolves came. They wanted to catch her. The girl drove them away. The animals were happy. They came up to her all happy...] The feelings described by children in their stories were often negative: »... *Tuki so prišli volki in so jo hoteli ugriznit. Ustrašila se je.*« [Some wolves came and wanted to bite her. She was frightened.] or »... *Vidla je oči od volka in potem jo je bilo strah in zdaj se cmeri.*« [She saw the wolf's eye and she was frightened and now she's crying.] Occasionally, there were examples of metalinguistic utterances and symbols of the kind that often appear in early childhood stories (Applebee 1978), such as »*Potrkalo je: tok, tok, tok.*« [She knocked: rat-a-tat-tat] The children's utterances also confirmed Dombey's (2003) finding that children of this age often use complex mental operations to reflect on individual story elements and to evaluate the behaviour of the protagonists, for example »*Jakno bi mogla obleči, ker je mrzlo.*« [She should have put her jacket on because she was cold] or »*Prišli so volki. Zakaj jih ni našeškala?*« [Some wolves came. Why didn't she spank them?]

The characteristics of stories told in early childhood as reported by foreign, mainly English-speaking researchers, that also appeared in Slovenian stories point to a measure of universality in pragmatic language use, unrestricted to a specific language.

The ability to tell a story is still developing between the age of three and four, so four-year-olds also tell less structured, less cohesive stories in which they describe illustrations or simply string together events, without a beginning, middle or end. Our results show that children at specific levels of development of pragmatic language use tell stories characterised by a particular level of coherence, while they also produce more unified and structured stories that become ever more frequent as they develop.

The results also point to certain developmental changes in the grammatical structure of stories, which were largely comparable to changes in language development as measured by the relevant scale. Brown (1973, in: Crain and Lillo-Martin 1999) claims that after the age of two children acquire additional grammatical rules, making

correct use of adverbs and pronouns in their speech. At both stages children used pronouns in their stories, for example »*Drugo jutro je videla vse pri njej.*« [Next morning she saw them all there], but their number did not change significantly. At the first evaluation they used fewer words that were often repeated, for example »*Deklica skače. Deklica smuča.*« [The girl is jumping. The girl is skiing.] Siegler (1998) asserts that, in spite of the fact that they know more than one word with the same meaning, toddlers tend to use the ones that are easiest to pronounce. Our findings indirectly support this, as four-year-olds, more often than three-year-olds, name the same objects with different words.

Between the two evaluations there was also an increase in the number of multi-word dependent clauses, e.g. »*Skakala je, ker je bila vesela.*« [She was jumping because she was happy], and coordinate clauses, e.g. »*Maruška sedi na stolu in gleda ven.*« [Maruška is sitting on the chair and looking out.] Three-year-olds more often used the kind of one-word and two-word utterances characteristic of toddler speech, such as »*Dimnik. Sneg.*« [Chimney. Snow.] and »*Punčka skače. Padla je.*« [The little girl is jumping. She fell.] At the first evaluation in particular there were examples of »telegram talk« characterised by the inclusion of only full lexical items but a word order similar to that children hear in grown-up speech (Bates and Goodman 2001; Papalia et al. 2001), for example »*Punčka smučala dol.*« [Little girl ski down] or »*Mamica dala bundo.*« [Mummy gave anorak.] The number of interrogative, negative and imperative utterances, and examples of direct and indirect speech remained low, while the use of future-tense verbs occurred very infrequently. It seems that the frequency of use of particular kinds of utterance was influenced by the testing of storytelling, which to a limited extent encouraged the use of interrogative and imperative forms as well as the use of the future tense.

In a similar way to the subscales for language comprehension and expression, mothers and teachers recorded age-based changes in children's language development, assessing the language of four-year-olds higher than that of three-year-olds. Four-year-olds, both at home and in preschool, formed more multi-word, interrogative and negative utterances, and correctly conjugated and declined more verbs in the past and future tenses. Mothers and teachers also evaluated that four-year-olds made use of more words in their speech. The results are similar to those on the *Language Development Scale* and the storytelling analysis that showed changes between the age of three and four in the development of the child's vocabulary and grammar. The significant differences between the assessments of mothers and teachers at the first evaluation is perhaps the result of the mothers' greater subjectivity, or the fact that three-year-olds are only just beginning to acquire certain grammatical rules and therefore use them infrequently in their speech. Perhaps at home or when talking with their mothers, but not at nursery school, three-year-olds are already making use of, for example, past tense verbs, the dual or negative utterances, so that the mothers can observe these and assess their language with a higher grade. The results may show that mothers are better at facilitating children's language expression than are preschool teachers, or that mothers are simply less critical or more subjective. At the second evaluation the grades given by teachers were higher than those given by mothers, but the differences were insignificant. One contributory factor might have been the greater language competence of the children



at the second evaluation, when they made use of complete and grammatically complex utterances in different contexts, such as at home and at preschool, and in dialogue with different people, such as mother and father, the teacher and other children. The higher grades assigned by preschool teachers at the second evaluation may mean that nursery school and the peer group facilitate the expression of greater language competence than the family environment.

The results obtained from the two evaluations do not support the findings of a number of authors (e. g. Hull 1972; Winitz 1959, in: Macaulay 1977; Hyde and Linn 1988, in: Bornstem et al. 1996; Bornstein and Haynes 1998; D'Odorico, Carubbi, Salerni and Calvo 2001; Hutteniocher, Haight, Bryk, Seltzer and Lyons 1991, in: Apostolos and Napoleon 2001) that girls« language competence develops more quickly than that of boys – for example that they master the grammatical rules of language, achieve better results with the correct pronunciation of words, form longer utterances, have a larger vocabulary, and achieve better results on scales of language comprehension. In fact the child's gender between the age of three and four had no significant effect on any measure of language development in different contexts.

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#### POVZETEK

Rezultati raziskave kažejo, da se v obdobju med tretjim in četrtem letom starosti dogajajo nekatere pomembne starostne spremembe v otrokovem govornem razvoju. Štiriletni otroci izražajo višjo govorno kompetentnost kot triletni, in sicer tako v testni situaciji kot tudi v vrtcu in družinskem okolju. Podobno kot to velja za angleški jezik (npr. Siegler 1998; Tomasello in Bates 2001), se tudi v slovenščini besednjak in slovnica v obdobju zgodnjega otroštva hitro razvijata, otrokove izjave pa postajajo vedno bolj strukturirane in podobne slovnici pravilnim izjavam odraslih. Dobljeni rezultati podpirajo rezultate nekaterih tujih raziskav (npr. Bloom in dr. 1993; Carey 1978; Miller 1986), da tudi v zgodnjem otroštvu obstajajo določena starostna obdobja, v katerih se obseg besednjaka otrok izraziteje poveča. Za obdobje med tretjim

in četrtem letom starosti so značilne tudi starostne spremembe v smeri višje koherentnosti in zapletenejše slovnične strukture zgodb, ki jih otroci pripovedujejo ob slikanici. Značilnosti zgodb, ki jih pripovedujejo otroci v zgodnjem otroštvu, o katerih poročajo številni tuji, predvsem angleško govoreči avtorji, in so se pojavljale tudi v zgodbah, ki so jih otroci pripovedovali v slovenskem jeziku, kažejo na določeno stopnjo univerzalnosti pragmatične rabe jezika, ki ni omejena na posamezni jezik. Otrokova sposobnost pripovedovanja zgodbe pa se v obdobju med tretjim in četrtem letom starosti še razvija, saj so tudi štiriletni otroci pripovedovali zgodbe na nižjih ravneh koherentnosti in z manj zapleteno slovnično strukturo.